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PROCEEDINGS

OF THE

SIXTH NATIONAL CONFERENCE ON CITY PLANNING

TORONTO

MAY 25–27, 1914

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REMARKS AT THE OPENING OF THE CONFERENCE

ADDRESS OF WELCOME

H.R.H. Field Marshal the Duke of Connaught

I look upon it both as a privilege and a pleasure to have this opportunity of addressing the first Town Planning Congress ever held in Canada.

Firstly, I consider that it was a wise decision on your part and a hopeful augury for the future to hold your initial meeting in Toronto. The energy, good taste and public spirit of its citizens have resulted in the construction of a very beautiful, spacious city, and I think the *genius loci* of the place will not be without effect on your deliberations.

Secondly, the question which you are considering is one that I look upon as among the most pressing of the many problems that are confronting the public men of our cities in Canada today. European countries, unfortunately, know only too well the evils that have arisen from want of foresight in Town Planning.

To begin with, houses and streets are allowed to grow in haphazard fashion. Later on, as a town increases in population, what was at first merely a want of method develops into a serious danger, and may end in the creation of a slum quarter, with all the physical, mental and moral decadence that the word " slum " involves.

Considering the terrible lessons that are so forcibly impressed upon one by these experiences in older countries, it would be nothing short of a national disaster if, for the want of proper forethought, a similar state of things was

permitted to come into existence in Canada, which is essentially a land of wide spaces, where there should be breathing room, not only for the present population, but for a nation ten times as large.

It is unnecessary to labor this point, on which we are all, no doubt, agreed. I think, however, it is not out of place to utter one word of warning. If the question is to be dealt with effectively, there must be no delay. The evil must be grappled with at once and drastically.

The flood of immigrants who land on our shores is of a formidable size. Already one hears disquieting reports as to the housing and sanitary conditions in some of our larger cities. It must be remembered also that, although the rural population of Canada at present exceeds the urban, that condition of affairs may not, and indeed is not likely to, last. We cannot ignore the history of the United States when we are considering the future tendencies of this country, and it is instructive to realize that nearly 80 per cent of the population of our great neighbor to the south is classed as "urban."

The whole question, too, is one in which prevention is far more effective than cure. Once let a vicious system be firmly established, vested interests will grow round it, the uprooting of which must prove a lengthy, controversial and desperately expensive process. To deal with this potential evil, substantive legislation is absolutely necessary.

I feel confident that your discussions of the model Town Planning Act will not only bring about a wise and courageous piece of legislation, but will also do good by stimulating public opinion on the subject throughout the Dominion.

I do not wish to take up your time further, beyond directing your earnest attention to three important points; namely: the provision of ample spaces for parks and playgrounds, the creation of main arteries of communication in cities and, last and most important of all, the securing of proper and adequate housing conditions for our increasing urban population.

Gentlemen, you are about to consider questions in which is involved the future happiness of many thousands of your fellow-Canadians. You are going to set your brains to work on problems in which Canada should, and in which I devoutly hope she will, set an example to the world.

You have an inspiring, almost a unique opportunity. I wish you Godspeed in your labors, and I assure you again of the interest and sympathy with which I shall follow your deliberations.

Response

Hon. George McAneny, *Vice-Mayor, New York City:*

It is my privilege, Your Royal Highness, to respond in the name of the delegates to this Congress to your very gracious welcome.

There are men and women here representing every part of our United States and every part of your Dominion. They are the workers in this great cause; those who are organizing the details of the movement and those who are accomplishing results. They are not theorists, nor faddists. We have passed the time when City Planning was confused in the popular mind with "The City Beautiful," something that had to do with adornment, that had no practical side. We have come to a universal recognition of the fact that when we speak of City or Town Planning, we speak of the building of cities and towns along correct lines, with proper coördination of their transportation facilities, their tracks and terminals, their streets, boulevards, parks and so on. We mean not merely the making of maps that are correct, but insistence upon principles of construction that are right; insistence—as you, sir, have so well suggested—upon proper housing conditions first of all. In other words, the City Planner of today is working out the problems which have to do with the betterment of the social and living conditions of the people who live in cities, and the people who live in cities are—as you have also suggested—becoming the majority of the people in these two countries. In

the United States not only is the greater proportion urban, but according to our last census 46 per cent of our people live in communities that number over 25,000 inhabitants. That, of course, is the great phenomenon of modern civilization—the rush to the cities and the changes in social conditions that necessarily follow. A little late, perhaps, has come both the recognition and the opportunity of the City Planner. Many of our cities have grown up wild in Topsy-like fashion. I speak, for one, with frank admission that that is our trouble in the city of New York. And we have learned, too, that when it comes to measures of correction in a late day, the cost is very great. We are spending millions today on the correction of errors that could easily have been foreseen if bodies of men like this had been at work fifty years ago.

Now our problem is not merely to correct what has been done wrong in the past, but to see to it that right lines are laid for the future. There cannot be a plan for the growth of a city that is too ambitious. You cannot go too far. It is safe to speculate upon great additions to population in almost every one of them. Therefore let the plan go far, that is the principle upon which we are now proceeding.

This Congress, which has grown from small beginnings, now meeting for the first time in Canada, is centered about an exhibit that it was our privilege to start in New York City. That exhibit, modest in its beginnings, went on tour throughout the States. Now it is here. It has accumulated as it has gone along, bringing from every quarter new examples, as shown in these graphic ways, of what other cities are doing and the progress that is being made.

I congratulate you, sir, upon the significant part that your own people have taken in this work. We owe our beginnings and our inspiration to England, and the fact that the British Government has recognized this work through its Local Government Board and is taking a guiding part in what is being done today will, I am sure, prove a matter of great satisfaction to your country.

We have no federal or state coöperation as yet in our city-planning affairs. Our legislatures have been very apt to interfere in our internal affairs—sometimes to our grief—but as yet the constructive planning has been left to the cities. The cities, however, are meeting their obligations, and meeting them so splendidly that what has been little noticed in the past is now becoming universally recognized as a great question of the day, and men in office who thought too little on these things a while ago are now protesting their firm allegiance to them and battling for the chance to show their earnest purpose in carrying forward the great work of City Planning.

So, sir, I repeat on behalf of the delegates our strong sense of gratitude to Canada in inviting us to come here. You have your corresponding problems here, and we rejoice to find that you are well on the way toward their happy solution. We trust that we may come again. Certainly we see abundant evidence of the fact that we shall *wish* to come again.

ADDRESS OF WELCOME

Hon. Clifford Sifton, *Chairman Conservation Commission of Canada:*

It devolves upon me to add a few words of welcome to the remarks which were made by His Royal Highness this morning. The Commission of Conservation, which I have the honor to represent, conceives that it does itself honor in becoming the host of this Conference on City Planning, in conjunction with the city of Toronto and the Province of Ontario.

When our Commission of Conservation was organized four or five years ago, at a very early period in our deliberations we arrived at the conclusion that the public health

was an important portion of the work to which we should devote ourselves. We thought that while it was vastly important to conserve our minerals and our forests and to increase the productivity of our fisheries and of our agricultural lands, and generally to conserve all those natural resources from which man derives his livelihood, it was still more important that the efficiency of the human unit, the health and the happiness and the vigor of the individual, should be preserved.

Therefore we have taken some interest in the promotion of a greater degree of attention to matters pertaining to public health, and in so doing we necessarily came into contact with the necessity for close, careful and systematic attention to the planning of our towns and cities, to the housing of the population and generally to the conditions under which our fellow-citizens were called upon to live.

It is therefore with sincere appreciation of the importance of your work that I welcome you on behalf of the hosts of this gathering to the deliberations which will follow the opening ceremonies which have now taken place.

There is a peculiar appropriateness in the fact that you are coming to Canada at our invitation in a year which is being signalized by the celebration of one hundred years of peace between the two great English-speaking nations, those two nations which we, with somewhat pardonable egotism, are accustomed to regard as the two greatest and most advanced nations in the world. You are coming here to solve problems which have arisen by reason of the peaceful progress of industry and of commerce.

It is but four or five years since the first practical word was spoken in regard to Town Planning in Canada. Previous to that time apparently no systematic attention had been given to the subject. The last three years has seen a very general awakening, and not only has great interest been aroused, but there has been, at least in the city of Toronto, a practical effort made to cope with the necessities of the situation. Various organizations have devoted

themselves to the improvement of living conditions in the city, and all with some degree of success. The Toronto Housing Company has gone a step further and has made a practical attempt to assist in solving the housing question.

The Toronto Board of Harbor Commissioners have instituted a great scheme of public improvement which you will hear discussed this afternoon. There is no doubt that this great scheme which the Harbor Commissioners of Toronto have inaugurated will, when carried to a conclusion, afford much needed relief in connection with the solution of civic problems in this city of Toronto.

We now have legislation on the subject of Town Planning in the Provinces of Ontario, Alberta and Quebec, and this legislation is of such a character that it undoubtedly makes for substantial progress.

We are very far, however, from believing that the legislation which we have secured at the present time is sufficient for the necessities of the case, and one of the main purposes that we have had in view in requesting the presence of this Convention in the city of Toronto was to stimulate public attention upon the subject, to engage the intelligent attention of those who will assist us in carrying out our plans in the future, and by your counsel and by your discussions and by your assistance to help us to the promoting of legislation which we can recommend to the various legislatures of the Provinces of Canada in the hope that with such backing we may secure the correcting of this legislation and make it a part of the organic law of Canada.

We have in Canada today perhaps the greatest field in the world for a successful combat with the evils which Town Planning and Housing are intended to overcome. In almost every other country of great possibilities development has reached a stage which has resulted in the growth of very large cities containing great numbers of people packed together under most unhealthy and insanitary conditions. I am not at the moment referring to what are known as slums, but rather to the highly congested districts where, during

certain months, life is hardly bearable. Anyone who has traversed the residential sections of the east end of London, or anyone who has looked down from an elevated train on a hot summer night to the congested district of New York, will readily understand what I mean. The conditions which have arisen are unfortunately incapable of radical remedy and can only be improved to a limited extent. The growth of very large cities is now so rapid and the habits of living so formed that it is practically impossible for public-spirited and philanthropic citizens to overtake the work which the housing problem presents. While much good may be done, yet it is, after all, but a small fraction of what remains to be done. The evils grow much faster than the remedy can be applied. In smaller centers of population better results can be obtained, but those of the larger class present conditions which at the best can only be partially ameliorated.

It is a peculiar fact, which has come under my notice lately in many large American cities, that where a movement is taking place to the suburbs, which ought to relieve the congestion of population, we find, unfortunately, that the people who are moving to the suburbs are not those from the congested districts, but from the well-to-do districts, from the districts where the people before they moved had no particular fault to find with their circumstances, illustrating still further how difficult it is to make any impression upon a large congested district in a great city. In Canada our cities are not yet so large as to be out of control. I do not mean that we have not undesirable conditions. There are three or four of our cities—Montreal, Toronto, the city of Winnipeg—which present conditions that demand a very radical remedy, and I think I would be safe in saying that hardly anything serious is being done in any of them, except in Toronto. But our cities are not so large that they are out of control, and it is still possible within the next ten or twelve years to relieve any evil conditions which exist at the present time, and to lay founda-

tions which will effectually prevent any serious growth of undesirable conditions in the future.

That feature of the problem which has to do with Town Planning, with housing regulations, with building by-laws and so on, you are thoroughly competent to deal with, and there will probably be a pretty general agreement on policies and methods after the subject has been clarified by discussion.

There are, however, unfortunately some further phases of the question of congestion and over-population to which I merely make a passing reference, because they do not fall directly within the scope of the work of this Conference. It would appear to be the result of modern experience that the growth of a nation in population, in wealth, in the development of art and science, in everything that we are accustomed to call progress and greatness, has certain disagreeable accompaniments.

We invariably find large masses of people who, although living in a perfectly reputable way, are located in congested districts where health and physique steadily deteriorate. Secondly, we find the growth of what are popularly described as slums, which follow the growth of the congested districts, where people are herded together under conditions which make clean and decent living practically impossible, conditions which breed disease and crime.

It seems a terrible indictment of modern civilization, but it is undoubtedly a true one, that the growth of insanitary, unhealthful conditions, the growth of slums and slum populations, are in direct ratio to what we call progress. The immense growth of the city is invariably accompanied by these undesirable conditions. Why is it? If you solve this question, you solve the most important social question of the modern world.

People have been at each others' throats for generations about theories of government. But as a man who has been engaged in public life for over thirty years and has tried to make somewhat of a philosophical study of political con-

ditions, I declare that the wisest man living can see little difference between the condition of people living where one of these theories is applied and the condition where the directly opposite theory is applied. Compare the United States, which is aggressively protectionist and which is only 140 years old, with free-trade England, where the conditions are the result of the play of social forces that have been going on for centuries, and both of them exhibit in almost equal degree, allowing for a difference in natural circumstances, the evils of which we complain.

We have many theories for the redress of social evils. Government ownership of public utilities, socialism and single tax are illustrations. The advocates of each claim that their particular theory will set everything right. Yet when we divest ourselves of the enthusiasm which people are apt to acquire when they take up one particular idea, it takes very little serious consideration to lead one to the conclusion that while, perhaps, each one of the remedies suggested has some merit and may, under certain circumstances, accomplish some good, yet that no one of them would radically alter the law that has heretofore obtained with inexorable regularity; namely, that the growth of poverty, misery and crime accompany industrial and commercial expansion on a large scale. Why is it that, as countries grow richer, the rich become richer and the poor become poorer?

We are building immense buildings of polished marble and cut stone, with elaborate furnishings and decorations, such as in former times would have been considered finer than any emperor's palace; and while we are constructing such buildings for ordinary business purposes, and paving our streets and lighting them in the most lavish way, until one can hardly tell the difference between day and night upon the great white ways of our cities, it is nevertheless true that alongside of this ostentatious, not to say extravagant, expenditure, there is an increasing mass of poverty and destitution.

When in Canada we had a population of two and a half millions and were admittedly poor and insignificant, there was not real want; no one was hungry, no one was houseless and crime was very rare. Now we have eight millions of people or thereabouts; we have transcontinental railways; we have great accumulations of wealth and some degree of importance in the eyes of the world; and we are beginning to see slums, congested districts and the ever-widening division between wealth and poverty which marks the beginning of the growth of a proletariat.

Consider for a moment the case of Great Britain. Twenty years ago it was the richest country in the world. It has actually doubled its wealth in the last twenty years. During that period its population has increased only about 20 per cent. Nevertheless there has been in the last twenty years hardly any perceptible improvement in the condition of a large portion of the population, and it still remains the fact, as was stated by Sir Henry Campbell Bannerman a few years ago, that one-third of the population live on the verge of starvation, while the most enormous growth in the wealth of a nation ever known in the history of the world has taken place around them.

A word to my American friends. Lord Macaulay once said that the time would come in the history of the United States when one-half of the population, after they got their breakfast in the morning, would not know where the next meal was coming from. That is a condition which seems to come to every country with the increase of population. That is a condition which will come if matters are left to themselves to proceed as they have proceeded at other times, in other ages and in other countries. History will repeat itself unless something is done to prevent it. I put it to you that the real problem that is up to the intellect of this twentieth century is whether we have brains and capacity enough to free ourselves from the prejudices and the shibboleths with which our minds are encumbered, and to grapple with these problems so that society shall control

its own destinies and avoid the evils which have dogged the footsteps of progress in the past.

You, perhaps, are not called on to deal directly with this economic question, but you must necessarily study and become familiar with the economic conditions under which your great work is to be done. You can give us what we want on the technical, the legal and the municipal side. You can give us the framework into which the ideal policies, when discovered, are to be fitted.

As to the answer to the question which I have propounded—what it is that causes these miseries and these masses of unhappiness which we all deplore—there is in my mind no doubt that it is impossible to give any single answer to the question. No one theory explains the fact. It is a composite problem and it requires a composite answer. But a part, and a most important part, of the answer is to be found in a rational system of Town Planning, a rational system of supervising the conditions in which the people in our great cities shall live.

No doubt until a short time ago the growth of congested districts, followed by the growth of slums, and of the habits of living which have resulted have been in the main due to a lack of transportation facilities which would enable the residential area to be extended. Other obvious reasons are the lack of systematic oversight and foresight; crowding and the growth of population for which no preparation has been made.

But owing to modern science there is now a remedy for these evils, and if any modern city fails to provide a proper method of transportation, in order to enable its population to extend its residential areas, then it is the fault of the people themselves, because the remedy lies close at hand. As to other difficulties, the experience which has been acquired and the lessons which have been learned in such conferences as this and been made available for popular use is now sufficient, if properly applied, to eradicate most of these evils.

We have invited you here to help us to begin our work in Canada on broad and comprehensive principles, and the purpose we have is to secure the basic legislation which will enable the whole question of Town Planning and Housing in Canada to be carried on in a systematic and orderly fashion. What is the best legislative foundation for this purpose will be for your consideration and discussion, and I have no doubt the result will be of the greatest value.

What I desire to say to you in closing is that the problem you are engaged upon is, in my judgment, one of the two or three great problems in the world today. It is more important than flying machines or wireless telegraphy, or battleships or armies. It has to do with the health and happiness of the average citizen, with the abolition of wretchedness and unhappiness. The solution of it will bring health and happiness to increasing thousands of our fellowmen.

Response

Frederick Law Olmsted, *President of the Conference:*

It is my privilege, on behalf of the Executive Committee which has arranged for this Conference, and on behalf of the members of the Conference, especially the members from the United States, to express our very hearty appreciation and thanks for the welcome which has been extended to us. Although there have been at previous Conferences many Canadians, I speak especially for the members of the Conference from the United States; partly because our Canadian members are in a sense among the number of our hosts today, and partly because the large majority of the members who have attended these successive Conferences have been from the United States, as is reflected in the term "National" which has been applied to these Conferences. The emphasis has been and is upon the "Conference," not upon the "National;" and that term has really been used to distinguish these Conferences from many others upon the same subject, of a purely local character, held in various

places. Still the name does reflect the fact that most of the members of the Conference are from the United States; and speaking for them particularly, I may say that we come here to Toronto with peculiar interest and we appreciate greatly this opportunity of coming here. This is not only for what we can learn here by what Toronto has done and is doing, although this is a great deal, especially in the far-sighted planning for the harbor which will be discussed this afternoon. It is largely because the problems of Town Planning which are being confronted and worked upon here in Canada, while, as regards economic and physical and social condition, closely similar to those in the United States, are being dealt with in a direct, straightforward manner without the embarrassment which we have to contend with in the United States on account of our written constitution in dealing with new projects for ameliorating the conditions of life in cities.

It may be that we have exaggerated the difficulties which these constitutional barriers have put in our way as City Planners; it may be that they are bugbears which would dissolve if we ignored them and went straight ahead toward our objective, as our good legal friend Mr. Crawford of Philadelphia indicated at a previous Conference; but I notice that, since he gave us that encouragement, an important project—I might say a pet project of Mr. Crawford's—the application of excess condemnation to the laying out of the Fairmount Parkway in Philadelphia, has come to grief upon the rock of unconstitutionality and is now at a standstill pending reference to the higher courts.

It may be also that this difficulty in getting new projects through the constitutional bars introduces a salutary check upon the precipitate enthusiasm of reformers and Town Planners. But it is an undoubted fact that the problem of getting through these legal bars does in the United States absorb a considerable amount of time and energy on the part of those interested in City Planning which might well be applied to the straightforward pursuit of the problem,

to the working out of the solutions which are financially, socially and physically best. This more direct method of going at the end in view seems to characterize the work in Canada, and we from across the border have a great deal to gain from contact with that point of view, especially in the discussion tomorrow of the proposed Canadian Town Planning Act.

For all these special reasons it is a great privilege for us to be here. There are also some general reasons why our activities should be stimulated and our discussions enlightened by our coming north of the border. The stimulating effect of a journey of this sort was brought home to me the other day by an episode that occurred to a friend of mine who had to move his family and household goods and live stock from the town of Milton, just south of Boston, to the town of Lincoln, northwest of Boston. Among a number of things he had to transport numerous hens, and he managed to get those hens into a large moving van which he hired for the purpose. As soon as the van started on its journey to Lincoln, the cackling of the hens made it evident that the journey stimulated their powers of debate, and when the van was opened at Lincoln, the floor of the van was found to be literally paved with eggs. Now I hope that this change to a Canadian city, this journey to Toronto, will not only stimulate our powers of debate, but will result in the production of something at the end of the debate, as was the case with those hens.

GREETINGS FROM TOWN PLANNING INSTITUTE OF GREAT BRITAIN

MR. THOMAS ADAMS, *President of Town Planning Institute, London, England:*

On the fifteenth of this month I attended a meeting in London of the Town Planning Institute, which has just been formed in Great Britain. From that meeting I was

asked to convey to you the warmest greetings, the heartiest appreciation of the Institute for the efforts you are making in Canada and the United States in regard to Town Planning, and their best wishes for the success of this Conference.

I can assure you we heartily wish you well and hope that you will take hold of these great opportunities which you have in this new country, to try to avoid many of the evils from which we suffer in the old country. We are, like you, very optimistic about the future, and we regard it as possible to arrest many of these evils even in the old country—because it is still a growing country, increasing in population as well as in wealth.

I come here to join in your deliberations not only from that Institute, but as one who has some official connection with Town Planning in Great Britain, and I hope we will together find some common ground upon which we can proceed to practical issues.

There is only one more proposal I have to bring before you, not one of greeting. I have to ask the President of this Conference to accept a nomination as an honorary member of the Town Planning Institute of Great Britain.

MR. OLMSTED:

It gives me very great pleasure, Mr. Adams, to accept that honor on behalf of the Conference which I represent.

BASIC PRINCIPLES OF WATER-FRONT DEVELOPMENT AS ILLUSTRATED BY THE PLANS OF THE TORONTO HARBOR COMMISSIONERS

ROBERT S. GOURLAY

Member Toronto Harbor Commission

WHEN in response to your invitation I was delegated by the Toronto Harbor Commissioners to present their plan of the Toronto water-front development to this important Convention, neither the Commission nor myself had any idea that the topic would be regarded as basic or one possessing more than local interest; nevertheless, in so far as the principles that underlie our policy are sound, they may be of service to other localities, and therefore with this apologetic introduction I will submit some of them for your consideration.

BASIC PRINCIPLES

We believe that a city possessing a water front has a heritage of incalculable value for every citizen.

We believe that such a water front should be owned by the citizens in a corporate capacity, the fee simple rarely if ever passing from them to private parties.

We also believe that this great heritage should be administered for the fullest benefit of every citizen individually and corporately from generation to generation.

We also believe that in these days of urban development, with consequent congestion and ever-increasing cost of living, a water-front heritage should be utilized for the purpose of making living conditions for all citizens health-

ier, happier, cheaper and better from either a home, business or recreation standpoint.

We also believe that due regard must be paid to making the administration, development and maintenance of such a heritage, if not profitable, at least self-sustaining or of such little cost to the citizens at large as to make the development absolutely worthy of civic support.

We believe that the development of a water-front property from a commercial standpoint, should provide a safe, commodious and deep harbor or waterway for largest craft with the greatest possible draft, deep water everywhere, eliminating shoals and, if possible, buoys and channels.

We believe a proper development should provide ample dock accommodation with all modern passenger and freight handling facilities, reducing to a minimum time and cost in operation as far as practicable.

We believe such a development should provide ample warehouse accommodation where freight can be housed for a day or a year, when required, at lowest possible cost for storage, insurance or handling.

We believe that there should be coördination of steam, rail, water-borne and radial freight handling on every important dock; in a word, link up all and every railroad with all boats and all radial lines, so that the transfer of a package or carload may be direct service with cartage or handling at smallest cost and with little or no interswitching delays and outlays.

We believe a modern development should provide a large central market in the heart of these transportation facilities for wholesale and retail distribution of food products; that is, the sale and distribution of all products brought to the city by water, steam or radial rail.

We believe that the development of water-front property from an industrial standpoint calls for the reclamation of all lands that are otherwise marshy or waste places. Water-front property should consist of only deep water

and good land. Good land when made, if suitably situated for industries, should be provided with modern highways, with rapid traction service, railway sidings to all roads, electrical energy for light and power, drainage, water service and, when linked up with the commercial developments already referred to, provide most advantageous location for manufacturing any product on either a large or small scale.

Also that in order to encourage the beginner in the manufacturing field in these days of great enterprises and large capital, model factory plants should be erected, supplied with all the facilities above referred to, and floor space therein offered at a fair rental rate.

Also that provision be made for the construction and repair of all classes of water-borne craft; industries of this nature able to manufacture the smallest pleasure craft or the largest inland freight or passenger steamer should be indigenous to the development of a water-front property.

In the foregoing I have referred to the basic ideas in water-front development that to our board were self-apparent, and yet so little followed on this continent that they are not much in evidence except as utilized by railroads or other corporations and citizens privately for their own advantage. Permit me now to refer at some detail to the recreation or amusement ideas that have been incorporated in the water-front development plans of the Toronto Harbor Commission.

Toronto's water front in a state of nature was hard to surpass from an esthetic or recreation standpoint. Its partial neglect is what we are planning to end, and at the same time to apply modern methods to its restoration so as to enhance its value as a citizens' playground, providing easy and cheap access thereto from all parts of the city. In this connection our civic fathers, through the parks and other committees, have not been unmindful of our great water-front advantages, yet thousands of our citi-

zens, who hunger every summer for a holiday by the water, flee away to spots which, by nature, are not so richly endowed as Toronto.

Briefly, we plan to improve all waste land not to be used commercially or industrially and make it desirable park land; to add to the park land now on the water front 392 acres; to reclaim 1,077 acres for industrial and commercial purposes; to provide concrete breakwaters east and west of our island park to the extreme limits of the city for shore preservation; to provide attractive promenades, driveways and board walks as well as bridle paths along our entire water-front and through our water-front park area (some 13 miles), connecting with a civic park and boulevard system at both ends; to provide safe water channels for all classes of small water craft in all weathers along entire water front, said channels passing through islands and lagoon park areas; to provide recreation piers, aquatic and other sport locations on land and water, safe anchorage, bathing beaches, playgrounds and outdoor amusement reservations as additions to parks such as add to the health and enjoyment of summer by the waterside, said areas to be usable for ice sports and winter recreation; to provide desirable locations for summer homes along our water front at many points accessible by electric train or water craft within reach of living and market conveniences.

In a word, we plan to make Toronto's water front a delightful rest or playground for its citizens and their thousands of friends from all lands.

Before passing on to details of plans for this development, may I take the time to state that in our development proposals, we aim at removing some of Toronto's disabilities that for a city of our area and population will be at once apparent to you?

Our protected harbor in front of the center of the city has no through commercial business highway from east to west; our plans call for such a highway 130 feet wide, con-

nected with modern concrete docks and streets running north for the full length of this area.

Our city is conspicuous for its lack of rapid-transit and radial service; our present radials end at different points on the outskirts of the city on the east, west and north and are in equipment and service worse than can be found in most American and Canadian cities of from 10,000 to 50,000 people.

We believe that our water-front development calls for both rapid-transit and radial service to the heart of our business, market and dock facilities, so that though some citizens think that this is not our business, we have nevertheless prepared plans for rapid-transit and radial roads to these centers with tunnel service and equipment, and are confident that in due time our people will see that our recommendations in this regard become, in the main, an accomplished fact and thus become a part of the general scheme of our water-front development.

With your permission I will now turn to the plans, in order to demonstrate how the Commission propose to carry out the ideas thus outlined, and at the same time, by reason of Toronto's unique water-front possibilities, make this development self-sustaining and in later years a sure profit-earning investment for our citizens.

The Work of the Commission

At the outset we faced the fact that only sectional plans of the water front were in existence, and even these not related. Consequently our first work was to make a complete hydrographical and topographical survey and plan of the water front.

The large part of the water front to the east and west of the central harbor was already in the hands of the city and could be deeded absolutely to the Harbor Commission. But there was only 40 per cent of the main water front, the

commercial water front that could come to the Commission, because the balance had been alienated to the railways or private individuals; and in that 40 per cent a very large portion was leased either in perpetuity or for twenty-one years, under tenure that had in most cases from eight to twenty-one years to run.

For years the railways and the city had been at strife in regard to railway development of the city, and this strife had prevented any movement to secure public control of the water lots in front of the property controlled by the railway companies; but the advent of a new body in connection with railway matters, the Dominion Railway Commission, has enabled us to get together on a business basis, so that as a result of a viaduct order and as a result of private negotiation we are able today to say to you and to the citizens of Toronto that the public ownership of this great heritage will come to pass in the very near future, and our plans may be carried to completion on the entire water front from end to end.

We have for working purposes divided the area into three sections. Yonge Street, our main artery north, begins at practically the central point of the commercial harbor. A mile and a quarter to the west is Bathurst Street, 100 feet wide. A mile to the east is Parliament Street. A little further to the east the Don River separates what we call Riverdale from Central Toronto. The central part, which is the commercial water front, has in the past been very much neglected and is not a credit to Toronto. The harbor is about 2½ miles wide and 2½ miles long. To the east of the harbor we have 3¾ miles and to the west about 3¾ miles. To the east the northern boundary of the lake is a sandbar called Fisherman's Island. Between that and the shore is a marsh with an average depth of water of a little over five feet. The marsh is at present almost in a state of nature, and many of our citizens of my age can remember the pleasure we used to have in the spring shooting ducks and other wild fowl in the marsh. It has been

of little use except as a pleasure ground, and that for a very limited number.

Beginning with the east end, we are constructing a breakwater at an average distance of 700 feet south of the present shore line. Adjacent to and north of the breakwater, we are creating a lagoon and park area about 800 feet wide on the average, with a 50-foot boulevard, a 16-foot bridle path and a 20-foot board walk.

Our greatest storms come from the east, and as this portion of the breakwater extends along the southwest, the lake will be seen at its best from the boulevard drive. The drive and board walks and the lagoons will be a great source of benefit to the residents of the eastern part of the city and will be made accessible to them by street-car lines to the main thoroughfare. At different points along the breakwater we shall provide access for the fresh water of the lake, where small vessels of not greater height than eight feet can pass into the lagoon area or out again into the lake.

Back of this lagoon and boulevard area we are reserving a strip 3½ miles long by 100 feet wide which we intend to lease in lots for summer cottages. We anticipate that the annual rentals to be derived from the leasehold privileges of the land to summer cottagers will amount to thirty-five or forty thousand dollars a year, toward the revenue of the enterprise.

North of that summer-cottage strip we have a 66-foot street, intended to be a commercial street, bringing to the homes of the people along this park area all they want in the way of the necessaries of life as well as providing access to the city.

North of this 66-foot street we shall fill in the marsh area. It is estimated that for this we shall need thirty million cubic yards of material, and investigations indicate that we can get that from the lake and from the inner harbor. Our purpose is to fill in the marsh land and transform it into industrial and commercial property. In this area we are

allotting 230 acres to streets, 140 acres for railway sidings, 90 acres for a deep-water channel with a turning basin, leaving the Commission 646 acres to lease for commercial purposes, out of the total of about 1,100 acres of marsh land.

The deep-water channel is to be 6,800 feet long, with a turning basin 1,100 feet square. This, we think, will give sufficient room for large vessels to tie up on either side and other large vessels to pass through and turn in the basin without interfering with those tied up by the motion of the water, while they are loading or unloading. In this development we add 3½ miles of dockage, with the possibility of extending another two miles, so that, if need be, we can have 5½ miles in addition to the dockage at the central water front.

At the present time, before the property looks presentable, we have any number of applications for sites, as the growth of Toronto in the last few years has been so rapid as to make it very difficult to get a really good industrial site with railway facilities anywhere near the center of the city.

As a commercial proposition we estimate, on the basis of the lowest price at which we have leased any of the land, that we shall have, when land is all occupied, a revenue of at least $500,000 a year in rent, on a 5-per-cent basis. The land we have leased so far has been leased on the basis of a valuation of fifteen to twenty thousand dollars an acre.

Our proposition to industries is this: we will lease you the land for twenty-one years at 5 per cent on its valuation; at the end of that time it will be revalued and you can then have it another twenty-one years at 5 per cent. In effect we say to industries: we will become preferred stockholders in your enterprise to the amount of the value of your land at 5 per cent; you need not invest your capital in the purchase of land, but you can use the capital for the development of your industries. As soon as we have the land available, we have no doubt that we can fill the area. Then

beyond the revenue which we receive as rent, the industrial plants themselves will be an assessable addition to the wealth of the city of somewhere between thirty and forty million dollars; that is, from the standpoint of taxation revenue.

Referring for a moment to the streets on this area, the lead lines to the railway sidings are to be laid on streets 175 feet wide. We are putting in 30 miles of streets and 30 miles of railway sidings. This width of street will give a 75-foot roadway on either side of the railway tracks. Every alternate street running east and west or north and south will be free from railway tracks. We have consulted the leading railway experts on this continent to advise us as to the best scheme of sidings, and we think we have secured the best scheme at present to be found in America. There are to be three tracks with a center feeding track with cross switches from the center track to the other tracks, so that each industry will have its cars placed and will not be interfered with by the movement of cars to or from other industries. In this way we save delay and expense in the handling of cars.

We have arranged with our three transcontinental railways to come into this area over our tracks, so that a car loaded at any industry for shipment over any railway will go out without expense for interswitching. We estimate that the interswitching charges that we will save to the industries by means of this arrangement will be from five to eight dollars a car. In addition there is the item, difficult to estimate, of the saving of delay both in getting cars placed and taken away; an advantage not only to the shipper, but to the railway company. The idea is to reduce the cost of handling to the lowest possible amount. At the present time the cost of cartage in Toronto is over a million dollars a year. We think we shall have reduced cartage and interswitching to their lowest point and that we will have unique shipping advantages.

In the laying out of this industrial area we are studying to accommodate large industries which need both water and

railroad facilities, as well as industries that do not need to be so close to the water, and also small industries. We are arranging to put up modern warehouses with the latest type of handling facilities, and we are also arranging to build model factories in which we can lease to the tenants as much space as they require, supplying them with all they need in the way of facilities as well as with hydroelectric energy which will be brought into this area underground and be at the service of the entire area, either for power or light, at a modest charge.

The river Don is a separating line to the east of the central part of Toronto. The Don brings down a great deal of silt with the spring freshets and a channel is provided for that. The opening will be 120 feet wide and 1,700 feet long. This work is at present under construction. There will be concrete bulkhead docks on the north side, and on the south side it will be so arranged that we can lease it to our boat builders, who will have a floating frontage on a channel in connection with the harbor that will be ideal from their business standpoint.

Passing from this industrial district we have the marshy land at the south, which will be made into good park land. We intend to make 352 acres of new park land to be added to what is already a magnificent park, one of the summer delights of our residents. At another section just west of this we are adding 350 acres, making altogether 702 acres in these two areas. Our proposition to the city is that we will make this land and the city will pay an annual sum at the rate of 5 per cent and sinking fund on cost of reclamation, and in forty years it will be their own property without payments or cost. An outlay of about $250,000 a year by the city will give the city a park area of nearly 900 acres more than they have at the present time, and that along a magnificent water front. I am happy to say that the city authorities have accepted the proposition and are going on with that part of the work.

Then we are carrying a boulevard through the island.

The scheme calls for 27 bridges in this lagoon area, crossing from island to island, to make it attractive for the summer residents and the people who go over for the day.

We cross the eastern channel on a lift bridge and then change the character of the boulevard. We still have the bridle path and board walk, but we change the contour and character of the boulevard to east and west driveways so as to make it more attractive and adapt it to the park areas in the lagoon intervals. The treatment of this portion of our plan has met with great favor from the citizens at large, and those of you who go to the Yacht Club tomorrow will understand just how attractive that island park area can and will be made for the citizens of Toronto.

We cross the western channel by a lift bridge, then the boulevard runs through a new park area and then along the front of the exhibition grounds. At Exhibition Park there will be a recreation pier and a landing pier for the use of those who attend the exhibition. Then the boulevard rises to the highest point of land we have along the water front. We have recommended the city to acquire additional property for park areas and double the width of the boulevard. Proceeding westward, the boulevard descends to the lower level and enters a new-made area and combines the features that we have in the east.

At the point indicated we are providing a site, as we have at other places, for leasing to yacht clubs, motor-launch clubs and so on, and we provide a safe anchorage of 42 acres for yachts.

We are filling the old western channel and at this point we have about 18 acres of land to be made where a connection can be made with the street-railway system of the city. At the present time the island can be reached only from one or two points, and that by boat, so that the residents of the city have to take the street cars to a central point and go over from there. Under this plan the water front is to be reachable, almost anywhere along the front by means of the street railway at the cost of the single

fare from any part of the city. In this we think that the water front will be made of incalculable value to our poorer citizens.

Then follows another industrial area and dock, also a playground, then, further west, another aquatic site, where already we are constructing foundations of pier for one of the Canoe clubs.

At this point the boulevard reaches the western area at the railway station called Sunnyside. There is a junction of a number of streets at that point. The railway station is on a higher level and overlooks a very pretty park area that we are providing for the city.

From Sunnyside on west to the Humber, which is the stream at the west side of the city, we met this difficulty: the water has so encroached upon the land that the main road from the west into the city is in some places reduced to less than 50 feet in width, and part of that is taken up with a radial railway. We are therefore carrying out the land some 1,000 feet beyond the present edge of the water and protecting it against erosion by a breakwater following the contour of the land until it comes to the western channel dock. There are openings every 2,000 feet to allow fresh water to enter and to give ingress and egress for craft from the lake. By means of that breakwater we provide a safe water channel in all weathers for small craft, a matter of great value in a commercial center where large steamers are making their daily trips.

We have planned a 66-foot commercial street at the back of a further reserve of 150 feet for summer stores, recreation booths and so on. Those of you who have been at Revere Beach, Boston, will have an idea of what we are endeavoring to work out. In front of the stores we shall have a 55-foot promenade, and in front of that we shall have concrete walks for 20 feet and then a parapet wall; beyond this we descend eight feet to another concrete concourse. In front of the concourse we have a boulevard and bridle path, then another concrete walk, and in front of this,

90 feet of bathing beach along the whole area, fronting on 500 feet of protected waterway. We find that in thus protecting the water we increase the temperature so as to give a much longer period for summer bathing than we at present have in the rather cold waters of Lake Ontario.

Our estimate of total revenue from these improvements is about $700,000 a year, and we think this is not too sanguine, as we have had some of our best financiers' opinions of the revenue-earning power of the whole scheme. This amount, if near correct, will go a long way toward paying for the cost and maintenance.

At the present time there are about ten million dollars of contracts let. The Dominion Government has approved of the plans and has let contracts for work to be done in five years at an expenditure of six million dollars. They provide the breakwater along the entire shore of the water front; they build the roller lift bridge over the two channels which enter the central harbor; they provide the deep-water channel and the turning basin and deep dock front of the basin along the east water front. They have agreed to do this and have let the contracts, and that portion of the work is already under way.

The Harbor Board has let dredging contracts to the extent of some four million dollars and has begun the work of reclamation at points located by our engineer. Last year, with small dredges, we reclaimed 75 acres. This year we shall be disappointed if we do not add to that 150 acres of land, worth at least $15,000 dollars an acre, and all in demand for industrial purposes.

We are going to deepen this entire harbor to at least 30 feet, so that when the new Welland Canal is opened, which is to be 30 feet on the sills, the largest vessel can come in through this western channel and move about the inner harbor without danger of running aground on any shoal.

Coming now to the central portion, as I said before, we found that only 40 per cent of that belongs to the city; but as a result of the viaduct agreement, we have reached

an understanding with the railways. The new viaduct is to be built on a bank 130 feet wide at its base, which will provide from six to ten tracks on the crest. It passes south of the developed property and has to be on new-made land.

The agreement that has been made is that in the construction of the viaduct the railways acquire all the property between their own tracks on the esplanade right through to the water; they take 130 feet and they offer back to the Harbor Board under agreement either the entire portion that they do not use for the viaduct at half the cost, or all the property south of the viaduct at one-third of the cost. It is the hope of the Harbor Commission that they will be in a position to acquire all the property beyond the 130-foot strip, which will be a very valuable asset.

The plan shows the old pier head line. We are carrying the new pier head line an average of 1,000 feet further into the water, and we have come to an agreement with the railways in regard to the filling in of this area, and the making of a 130-foot highway, which will give us what we have never had along the water front — a great commercial highway from Bathurst Street on the west to Cherry Street on the east. This will link up with our own boulevard and highways and give us a highway across the entire water front which we think will be of incalculable value not merely as a commercial street, but as an outlet for the activities of the city to the south.

This development will give us 180 acres more of land in the very heart of the city, an exceedingly valuable asset. While the removal of the property owners and lessees along the front will cost the railways and the Harbor Board considerable money, still without this they are standing in the way of the development; and when they remove from their present sites they will become our tenants on better land under modern conditions, and we therefore will not lose business, but will have better business. The land that we

acquire and the 180 acres additional that we make will give us an asset of immense value in future years in the development of the entire water front.

Discussion

Organization of the Commission

Mr. John Nolen, *Cambridge, Mass.:*

We have had from Mr. Gourlay a very full statement of the work of the Commission. May I ask that he add to that a little fuller idea of the organization of the Commission, with regard to whether it is a paid commission or in what way it has been organized, for what period of years and so on?

Mr. Gourlay:

The history is this. Toronto harbor front was for years under the care of a harbor commission of limited powers. The city property along the front was administered by the civic authorities and improvement did not keep pace with the growth of the city, which led to certain conditions in connection with vessels arriving. Some vessels were unable to get dock accommodations. That awakened the interest of our people in the proper development of the harbor. The matter was taken up actively by the City Council and the Board of Trade, agitations and discussions were started and the outcome was a decision to approach the Dominion Government and endeavor to secure the appointment of a commission with large powers which would administer the whole matter as a specific part of the work of the city. The Board of Trade intimated that they believed there were business men in Toronto who would be willing to serve the city without remuneration if an enactment of that kind was put on the statute book by the Dominion Parliament. The matter went before the citizens in the shape of a referendum as to whether they would

approve of a harbor board commission being appointed with large powers, to administer the whole water-front property. The citizens approved by an overwhelming Yea vote, and the city authorities, acting in conjunction with the Board of Trade, laid the matter before the Dominion Government, and the result was statutory enactments appointing and giving the Harbor Board very wide powers, giving them the same powers of expropriation, for harbor purposes only, that the railways have. In fact the legal advisers of the railways interpret the powers given to the Harbor Board as being in advance of their own. It is their opinion that the Harbor Board can even expropriate railway property for harbor purposes.

The statement made by the Board of Trade that a commission could be secured in Toronto to serve the public without salary proved to be true. The commissioners who are now drawing near to the end of their first three years have served the city without salary, and it is the expectation that the incoming members will do the same and that this body will carry on the work as a commission, taking the responsibility of the work without salary and giving the time necessary, by reason of their desire to be of public service during their lifetime. They have an efficient organization. Their engineer, Mr. Cousins, who ought to have been in my place, answering your questions, and who is in the audience, is the chief engineer. He has as consulting engineer Mr. J. G. Sing, of the Dominion Public Works Department, who is the best posted engineer on harbors and interior water-front properties in the Dominion. Then there is an efficient staff who carry on the executive work under the direction of the chairman and the commissioners. As I have said, the commissioners serve without salary or any remuneration, and some of them have become so fond of their baby that they are glad they have had the opportunity to serve.

FINANCIAL CONSIDERATIONS

HON. FREDERIC C. HOWE, *New York City:*

I would like to ask what the total cost of the undertaking will be and how long before the work will be completed?

MR. GOURLAY:

The estimated cost is seventeen millions, covering everything except this central area. The development shown in the center is tentative and there the plans will be worked out as the property is needed, outside of the bulkhead line and the making of some of the docks. We are not in a position to give you exactly the estimated cost of the central part, as we are of the other; but the total estimate is expected to be under twenty-five millions for the entire work. The Harbor Board will have to provide that, with the exception of, say, seven millions spent by the Government and two millions by the city.

The estimated value of the property turned over to the Harbor Board is nine millions, and when we add the reclaimed area to it, the total value will be very much greater, exceeding considerably the amount that we will have to put into it, and at the present time we are having no difficulty whatever in floating our bonds.

As to the time required, our engineers indicate that the area can be reclaimed in eight years from the time they begin really active work, and that is this season. In our statements to the public we say ten years, but the estimate of the engineers is eight years from this year.

MR. ALLEN B. POND, *Chicago:*

With regard to the financial aspect, are you proposing to issue bonds for the Harbor Commission's share of this improvement? That will be something more than half of the amount which will have to be raised by the Harbor Commission. What guarantee have you for those bonds? Have you a taxing power or do you expect to borrow money on the reasonable assurance of the commercial value program?

MR. GOURLAY:

When we took over this property its value was estimated at nine millions of dollars. It had a revenue from docks and other sources and that revenue is increasing. We are increasing the value of the property and we are having no difficulty, on the value of the property, in floating forty-year bonds. We have also this advantage, although it is not an advantage in the price we get for the bonds: that the bonds are guaranteed by the city. Our forty-year bond, guaranteed by the city, is a commercial asset on the London and New York market. In fact, our first sale of bonds was in New York City last year.

MR. W. R. OWEN, *Vancouver, B. C.:*

I understand, then, that at present there are no charges, no bonds issued as against that property?

MR. GOURLAY:

The only charge against the property is the charge we have put on it so far for development purposes. The property came to us free, valued at nine millions. When I say came to us, I mean the Harbor Commissioners, for the time being a separate body from the Municipal Government of the city.

HON. D. W. WILBUR, *Mayor, Poughkeepsie, N. Y.:*

The gentleman has not quite made clear to my mind how the interest charges are to be met and the bonds finally amortized? The Harbor Commission will assume the raising of something like fifteen or eighteen millions of dollars if this plan is carried out, and the gross income will be something like $700,000. How much net income will you have after you have paid your bonds, or will the city pay the bonds by taxation and you use your income for amortization? What will be the end of the scheme forty years hence?

MR. GOURLAY:

We estimate that from the revenues we shall derive from the harbor lands and property in way of rentals, etc., we shall get sufficient revenue to pay the interest on the bonds and provide a fund to amortize them, which latter is made necessary by our statute. In fact we anticipate, when work is complete, there will be a revenue surplus for the city's use.

HON. GEORGE LANGLEY, *Minister of Municipal Affairs, Regina, Sask.:*

Is the assistance of the Federal Government a present, or does it bear interest?

MR. GOURLAY:

The Government portion of the development is a Government outlay on one of the chief harbors of the Dominion. It is provided from the public moneys under Government control and will be a permanent improvement under the control of the Harbor Commission.

A MEMBER OF THE CONFERENCE:

Did you find any difficulty with the city when they handed over the nine millions of property to you? Did it affect their bonds in any way that they divested themselves of nine millions of assets? Those who hold city bonds would find their security diminished by the city giving you those nine millions of property. How did they manage to free that city property from the bonds already issued by the city in general terms?

MR. GOURLAY:

I do not know that they had any difficulty. That is a matter that has not come under my attention. As a matter of fact, until the Harbor Board was appointed, I doubt if the city valued the property as it is now valued by investors.

LIEUT.-COL. W. P. ANDERSON, *Dept. of Marine and Fisheries, Ottawa:*

I think, Mr. Chairman, I can explain that point, and in doing so I can make the remark general, applying to all harbors in Canada. Under the Dominion law the bed of every public harbor in Canada is vested in the Dominion, and the whole of that portion colored pink on the lower plan was given over by the Dominion of Canada quite recently to the city for the use of the Harbor Commissioners, without any charge being made therefor. It has been the policy of the Government in all cases of this kind to make free grants to the authority that was responsible for the improvement, the idea being that the Dominion Government was a trustee merely of this harbor property for the good of the community on which it faces, and to guard the property against exploitation for private purposes. In that way the whole of that pink portion has quite recently been alienated from the Dominion to the Harbor Commission.

MR. GOURLAY:

May I supplement what Colonel Anderson has said? The Harbor Commission as constituted represents not only the city, but the National Government. There are five men serving on the Commission: three appointed by the city every three years; two appointed by the Government, one directly and the other after communication with the Board of Trade. So that the Commission represents not merely the city, but the Dominion in the administration of this property.

MR. W. E. GELSTON, *Pittsburgh, Pa.:*

I would like to ask if, in raising this money, you have the power of excess condemnation and if you expect to use it? Another question is whether you expect to assess benefits. With us, if we try to do anything of this kind, we are helpless unless we can use those two ways in which to raise funds.

MR. GOURLAY:

The Harbor Board has no right to acquire any property that is not necessary for the harbor development. We have no right, for instance, to acquire the property to the north by expropriation. I do not know but what, if a factory owner came to us and said, "I want to move from my present site to your industrial area," we might be able to get the Legislature to enable us to make an exchange of property, but we have no right to expropriate property in order to resell it at an advance and so secure the advantage that will come to the property from the harbor development. The only advantage to the city in that way, I take it, will be the increased assessment on the property that has increased in value with the corresponding increase in taxation from year to year. As to assessing benefits, Mr. Forman, the Assessment Commissioner of Toronto, is here and will perhaps answer your question.

MR. J. C. FORMAN, *Toronto:*

All that the city will get is the taxes on the increased value of the property by reason of the improvement, as part of the general assessment, but not as a special local-improvement tax.

MR. GOURLAY:

The city has the right, in improving a street, to charge the cost of that as a special tax against the property benefited. But on this property there is nothing of that kind.

MR. HOWE:

I think that the suggestions made by two or three speakers, in the nature of inquiries as to the use of special assessments and excess condemnation, do suggest a financial criticism of the plan. Quite obviously the industrial development to the east, the development of the railway terminals there, will lead to a very great increase in land values of the land immediately behind. A great percentage,

I should fancy, of this value will be reflected back, and it would seem to me that a large part of the cost might with propriety be assessed back upon the abutting and adjoining land benefited by the improvement.

There is in the exhibition here a chart from Kansas City, showing how the total value of the park system was assessed back upon the adjoining property, and it would seem to me an enabling act or an increase in the powers of the Harbor Commission or the city, by which they could relieve themselves of a part of the financial burden here, would be a proper amendment to their project.

MR. GOURLAY:

The Harbor Commission, under their arrangement in regard to the viaduct, have the right to purchase lands in the area north of the viaduct, together with all the area south of it that is created by the filling in, getting the water-front privileges of course with the land, at half the entire cost of buying up this property at the present time. That is, the railways pay for that 130-foot strip half of the cost of this entire property, and the Harbor Board have the right to get that back, so that, if there is an increased value, the Board in that indirect way get the advantage when they buy it back after the appraisement.

PRESIDENT OLMSTED:

I think the point which Dr. Howe touched upon a moment ago has not been made quite clear. The concentration of a large number of industries employing large numbers of people in this southeastern quarter of the city will increase the value of the property, for residential purposes, owned and held by the owners of property in its vicinity, because of its proximity to the industries.

MR. GOURLAY:

There is nothing in the Harbor Board statute, nor so far as I know is there in the city statutes, to provide for

that. But I have been given to understand that the draft of the Town Planning Bill, which is to be discussed at this conference, provides for that increased value of land coming to the city.

MR. N. CAUCHON, *Ottawa:*

No power exists in Canada at the present day for absorbing any of the unearned increment, as some people call it. Provision is made in the draft act, that we are submitting to you, to cover that. You have it in the city of New York with respect to tubes. We have no such enactment in Canada of any kind, and that is why such a body as the Harbor Commission of Toronto have no expropriatory powers beyond those required for the immediate purpose for which they are created. Therefore all the increment which they create by their work goes to the private owner.

JOHN J. WALSH, ESQ., *Boston:*

I would like to ask the speaker how he went to work to get popular approval for such large expenditures. That is not so important in Canada, where the Government may do things without regard to the people, but it is highly important in the United States, where we must get the sanction of the common man. I would like to know some of the methods adopted to win approval here.

MR. GOURLAY:

In the first place, we kept our own counsel for a year. We stood criticism from some of our newspapers because it was said that the Harbor Board had been in existence for a year and had done nothing. Having arrived at a conclusion as to a practicable plan, we took the people into our confidence in the fullest possible way. We spread out our plans before the newspapers, so that they were full of it. Then we went on the platform and explained them fully to the electors, and they went through.

MR. WALSH:

Did you have any opposition from land speculators who had more greed than civic patriotism?

MR. GOURLAY:

No, because we were in this unique position: land speculators knew the development of the harbor front would be an advantage to property in the city generally. Our trouble just now is to keep the land speculators from getting copies of our plans.

RAILROAD CONNECTION

MR. M. N. BAKER, *New York City:*

What has the attitude of the railways been in regard to this development?

MR. GOURLAY:

Most friendly. The railways were in a position to tie up our access to this highway. We wanted to get away from the concentration of business in the center of the city. The railways were in a position to tie up Bathurst Street. The C.P.R. owns a large property near the foot of Bathurst Street, in use for yards, freight houses, etc. Our first negotiation with them was to see whether we could not make an exchange of properties, to enable us to get a 100-foot thoroughfare on a 3-per-cent grade to our western industrial area. As a matter of fact, we took our plans to the railways before even many of the city officers knew anything about them. We said to the railway officials, "Ours is a business corporation, like your own; we have to come in competition with you. Water competition may cut down your rates, but we believe, if we can get together on a basis whereby we will minimize costs in the handling of goods and make it easier for you to do business, as well as for ourselves, the ultimate saving to both of us will be of sufficient advantage to make it worth while for us to coöperate with

each other; in this manner we will both be serving the citizens by giving them the best possible service at the lowest possible cost." In response, the railways said they were prepared to meet us in that spirit. Then we said, "We will lay our cards on the table, we will show you what we want and will deal openly, until such time as you take advantage of the fact that we are open with you." From that time to this I want to say for the railways that we have had splendid treatment and have had no difficulty. I am not referring now to the agreement that came to us under statutory enactments, as a result of consultation and conference with the Board of Railway Commissioners. When we came to deal with this portion of the property from York Street west which was all under the control of the railways we were able, after many conferences, to get together in a manner that was most friendly, and we think the conclusion is fair to both sides. The railways will get increased accommodation and the city will get better accommodation and service in what we are able to do for them. Our experience has been that, while the railway officials are eager and alert to look after their own, at the same time they are ready to meet you in a fair spirit, and it is up to you to be as eager and alert in looking after your own interests as they are.

E. M. Bassett, Esq., *New York City:*

I should like to ask Mr. Gourlay whether, as the traffic and business grow greater in the central part, there will not be greater need of railways and sidings on the same level as that of the dock? Then the question of grade crossings will arise and the multiplication of railways. How is it planned to meet that so that vehicular traffic can come down to the dock without the danger of grade crossings?

Mr. Gourlay:

Under the viaduct order the railways are allowed to retain all their present trackage facilities for the administra-

tion of their work in Toronto. They will also be permitted so to amplify these that they will have three sets of team track deliveries. The viaduct is 130 feet wide and it will be possible to put ten tracks upon it, and that will be extra trackage accommodation in addition to what they already have. Furthermore, the railways get a new area, shown on the map for track accommodation. We are providing a strip of 200 feet north of the docks, plus this 130-foot highway. We are under the impression that with most of the dock freight handled at night this 330 feet, in addition to the area that the railways already possess and are using, will be all that will be needed for the next generation.

It must be borne in mind that, if the city develops as it has in the last ten years, the commercial part of the city is rapidly going north, and the purpose of the railways is to divert a large portion of the traffic from the water front to their northern tracks, where they effect a saving both in mileage and grades across the north of the city. We therefore think that we have provided for the railways for the next twenty or twenty-five years, and by that time the commercial heart of the city will be so altered that any further railway accommodation on the water front will not be necessary.

A MEMBER:

A generation is a very short time. May I ask this question? Is it the idea that, as the development goes north, you may drive some of the railway traffic north? You cannot drive the harbor traffic north. Why should you provide only for a generation?

Also, if there is a time limit as to switching in the central part, will not that have the effect of driving anybody wanting harbor accommodation from that part to another? If there are limitations in the center and none at the east, a man would naturally go to the eastern part.

MR. GOURLAY:

It must be borne in mind that Toronto stretches practically two miles west of the west end of this work on the north, and at the present time business is congested into 2½ miles in the center. The purpose of the Harbor Board is, by opening up this highway, to divert the traffic and spread it more over the city. We may be wrong, but it is our expectation that, as the city develops, we shall be able to give all the service it requires from the harbor.

A MEMBER:

You are developing a harbor, and therefore it is harbor traffic you are looking for and not the cessation of that traffic. I would rather fancy that you would anticipate more traffic coming to your harbor, an increase of water traffic and not a dispersion of it to the north.

MR. GOURLAY:

It is not the desire of the Harbor Board to drive any traffic away from the water which naturally comes from or to the lake. Unfortunately the inward freight, water borne, last year was less than 400,000 tons. The city of Hamilton had a much greater volume. The railways carried to Toronto about five million tons. It is the desire of the Harbor Commission to bring harbor traffic to Toronto, but we believe we have provided all the accommodation that will be needed for many years. We would not bring the radials to the market as we are trying to do, in this area, if it was not that we want to create a much larger water traffic. It is the railway traffic which is not connected in any way with the water, such as through trains, for instance, which the railways have been trying for some years to move from the water front to the north.

MR. HOWE:

Does the Harbor Commission propose to own all the railway sidings and the interior operating mechanical devices connected with the warehouses for handling freight?

MR. GOURLAY:

We are constructing the roadbed and laying down the tracks, and we will own the tracks. As to the question of operation, we may lease the tracks to a railway under conditions that will be fair to all parties, or we may handle it ourselves. That is a matter for subsequent administration. The point is, that by the ownership of these railway sidings, we are in a position to negotiate with the railways in regard to advantages and privileges in the matter of interswitching more advantageously than we could have under any other conditions.

COMMUNICATION WITH CITY AND METROPOLITAN DISTRICT

MR. THOMAS ADAMS, *Town Planning Institute, London, England:*

I should like to know whether, in developing these proposals in connection with the water front, you have considered with them the subject of intercommunication between the city itself and these boulevards which you are proposing to lay along the water front? The work that you do here in the way of development may serve several generations, but whatever you do to close the connection between this work and the city will be difficult to change. The large amount of money which the railways are going to spend will mean that works will be created which will prevent intercommunication.

PRESIDENT OLMSTED:

I think, perhaps, in starting the discussion when I did, I prevented Mr. Gourlay making an explanation of part of the subject which we really need very much to know. The discussion having relieved the pressure of those who were anxious to ask questions, I hope Mr. Gourlay will now discuss the other aspect — the connection of the harbor with the rest of the city.

MR. ADAMS:

I think, sir, that would be most valuable. But may I raise one more point? It is proposed to create 640 acres of industrial area. Where are the people going to live who will be brought into this area to work in these factories? Will it be immediately to the north? If so, the whole of that land will, of course, receive considerable benefit from the development of this land as an industrial area.

MR. GOURLAY:

The eastern part of the city, north of the new industrial area, is not thickly settled. Last year has seen a greater increase in its population than ever before in the history of the city. It is a large area east of the Don and runs far north, and its streets north and south will be made to tap the new work so that the people will have direct communication with it by street railway. They will be able to reach the new industrial area more quickly than areas west of the Don that they are now working in.

MR. ADAMS:

As the city and the Federal Government are spending such a large amount of money in developing this area, might it not be advisable before spending that money to secure that the land to the north shall be developed in a satisfactory way, with some regard to the planning of the whole affair?

MR. C. J. YORATH, *City Commissioner, Saskatoon, Sask.:*

With regard to this scheme, which has been so ably explained by Mr. Gourlay, it would appear to me that the only fault that can be found is that the scheme has been developed as a unit and not considered in the development of the city as a whole; and if any drawback should arise from the scheme, it will be that proper transit facilities have not been provided; and, as Mr. Adams has pointed out, proper housing accommodation for that industrial area has not been provided.

MR. GOURLAY:

The Harbor Board's proposal for rapid transit was only presented to the citizens at the end of last season, and at a time in the history of the city when feeling on the subject of rapid transit generally was very warm indeed. Consequently the scheme of the Harbor Board as presented is at present only under consideration by the engineers of the city, of the Harbor Board and of the Ontario Government Hydro Electric system, which is interested in the radial service of the whole Province. The scheme, therefore, which is proposed, and to which I will refer now briefly, must not be taken as an accepted plan. It is only a suggestion coming from a majority of the Harbor Board as a solution in part of the transportation difficulties of Toronto and as a necessary corollary or accessory to the water-front development in its varied parts.

What we call a " radial " in Ontario is a suburban street railway that travels through different municipalities and reaches some common center. We call that a radial road to distinguish it from a steam railway. It is run by electric energy; its track is usually upon a highway, but may be on a private right of way, and it passes through different municipalities.

The radial railway from the west reaches Toronto about Sunnyside, and then its passengers must take the city street car and pay another fare to reach any part of the city. Another radial coming from the west reaches Toronto on Bathurst Street at the north. You will find that the radial roads come to just about the boundary of the old city: one point on the southwest, another on the northwest, one on the north, on Yonge Street, and one on the east.

As I have shown, we are laying out an 80-foot electric radial entrance from the west along the water front. There is a radial seeking to enter from Guelph. It has not yet been allowed into the city; it has a franchise, but not on the streets. There is a radial from Hamilton, one from Weston, another from the north, coming down Yonge Street

to the point indicated. There are two radials desiring to come in from the east.

The thought of the Harbor Board is that, by building a tunnel from the north, right through to the heart of the city, to the water front, they will be able to provide rapid transit for the municipalities on the north, bringing the people to a large market center which will be at a place now called "Harbor Square." At the present time it is used as a playground park. A terminal station somewhere in front of the city hall is also suggested.

Then it is suggested to use the Don Valley, which is on a lower level than the land on either side, and bring the eastern radials down the Don Valley. The valley is already in use by the C.P.R. and the C.N.R., but there is sufficient room for the radials. The western lines would come in by means of a tunnel through the exhibition ground. By these means, without crowding the streets of the city with surface radials, the cars would be brought to the heart of the city. The time at present occupied in getting from the outskirts to the center would be cut in two.

Our estimate is that the work and equipment would cost about fifteen millions, and we think the development of a radial service of that character would be of incalculable value. It would be a feeder to the business of the water front, the subject we were discussing a few moments ago. It is believed that such a system of rapid transit would enable the workers in factories and warehouses to live in the outskirts, where they can have a bit of land of their own, without losing an hour each way on street-car transportation, as they now do with the present inadequate railway service.

I would like to say again that this is just a tentative scheme which has not yet met with the approval of the citizens or of the city authorities, but is shown to you merely as a factor in the working out of the basic principles we have in view in this water-front development.

General Comment

Mr. Charles W. Leavitt, Jr., *New York City:*

I wish Mr. Gourlay would tell us what is the proportion of water to rail tonnage in Toronto and what the increase has been in the past decade. What is the comparison with Hamilton and Port Arthur? If the increase in tonnage in the future does not demand these improvements, what use will be made of the improvements? Should the increase come, as there is evident reason for it coming, and this entire area be covered with manufactories, what will be the effect on this extensive park system and on the city?

Mr. Gourlay:

The Harbor Board has realized that this proposition is not entirely a dock proposition. If we were to rely on the increase in the tonnage to carry the expenditure, it would be a gamble, and I am afraid the probabilities are that it would not pay. But you will see that the large proportion of the expenditure is for the development of an industrial and commercial area, which is at present in demand. Owing to the growth of the city, it is almost impossible to get sites of that character without going miles away from the center of the city. We have no fear whatever, and our experts have no fear on that point. We feel sure that the area will be occupied in the manner proposed by the Harbor Board and become a revenue producer.

The cost of the 900 acres of new park area and the necessary bridges, $1,800,000, is not an extravagant expenditure. I submit that to any of you experts. It means an annual increase in the taxation of the city of $250,000 to pay off the principal and interest in order to provide 900 acres of park. That is not an extravagant amount to ask from a city of 500,000.

I do not know that I have fully grasped the question or answered it as the gentleman desires, but I would like to

call attention to the fact that this large amount of money is not being wholly spent in harbor development. As I have said, the Dominion Government is spending six millions odd, giving us the drydock and breakwater and so on. That is a national work. What we will spend after that will be as the demand develops. We have the area for 5½ miles of docks, and as the need arises we will build those docks in such a manner that they will be revenue producers.

One of the problems is to make a big market, or any market, pay under modern conditions. We think that, by connecting the market with the radial service, the steam railways, the dock service, the cold storage and the warehouse service, we may get it to the point where even a market will not show too heavy a deficit for the city and the Commission to carry. As to the tonnage, last year the water tonnage into Toronto was only 400,000; outwards it was a little greater; ten years ago it was probably about 300,000. The rail tonnage last year was five millions. I cannot tell what it was ten years ago, but the proportional increase has been much greater. The increase in the water-borne traffic has been very slight. Two or three years ago a vessel came in from Great Britain. It was loaded with paving brick; it was but a small vessel; it had to be to come up through the canals; and yet it could not get into the docks. Our water front had been in a measure neglected, and the docks were either all utilized by people who were paying good rents for them or were not approachable for the purpose of unloading said paving bricks.

MR. LEAVITT:

Would you mind answering the question as to what the effect of smoke and so on from these industries will be on the city and the parks?

MR. GOURLAY:

We have difficulty at the present time with the smoke nuisance. We have made it clear that, in the case of in-

dustries that call for a great deal of smoke or gases, they should not locate on this area except under the most modern conditions. The health of the citizens will be the first consideration. In considering the proposal of a steel plant, we have sent to every place, within a reasonable distance of Toronto, where there is a steel plant in operation, to see what the effect is on the surrounding territory before we would say yes or no. We hope to coöperate with the city in keeping the smoke nuisance at a minimum.

MR. E. R. MACK, *Wilmington, Del.:*

In which direction is the prevailing wind?

MR. GOURLAY:

From the southwest.

MR. MACK:

If that is developed as a big industrial area, the prevailing wind will drive the smoke and gases over the heart of the city.

MR. GOURLAY:

It will be pretty well dissipated before it gets to the heart of the city.

MR. LEONARD E. SCHLEMM, *Montreal:*

Will the fact that your harbor will be frozen over for five months of the year seriously affect the desirability of the location?

MR. GOURLAY:

I think not. An industry will be in no different position there when the water is frozen for five months than it would be in any other part of the city. When it is difficult to get an industrial location anywhere near the city, the fact that the water is frozen will not make any material difference. Those who have to do with water transportation on the

lakes accumulate incoming merchandise during the season of navigation. And in the same way in the winter, those who intend to ship by water accumulate freight until the traffic opens. The vessels have their traffic provided for weeks ahead, waiting in storehouses until the vessels start. I do not think it will make any material difference whatever to this scheme — the fact that the harbor is frozen over — because that is a condition under which the industry of Toronto has always labored and will continue to labor, unless, perhaps, icebreakers come into further use.

Mr. E. P. Goodrich, *New York City:*

The whole subject has been so ably handled that perhaps only one or two points can be commented on.

As the winds blow so as to carry the smoke and gases toward the city, some derogatory criticism must be acknowledged. But it is believed that a proper restriction enforced will bring about a practical elimination of smoke and gases.

For example, the Burk Company has an area of some 600 acres, which is very intensely used, and it has absolutely no smoke. The power is electric or else any steam produced by coal is so guarded that so-called smoke-consuming devices are in every case insisted upon. That particular criticism, therefore, can be ignored if proper precautions are taken.

The question of the relationship of the water frontage to the warehousing is another matter which doubtless the engineers of the Harbor Commission have taken into account; but the short, wide shape of this pier leaves the speaker to suggest that probably there will be two or three separate sheds which will be used for terminal and warehousing for certain short periods. That will reduce the amount of warehousing space required.

It is also a fact, which has been demonstrated in Brooklyn, for example, that there is a possibility of securing too much warehouse space, so that warehouses originally built

as such are now being turned over for industrial use. There is not the necessity under modern conditions for warehouse accommodation which was formerly required.

The possibility of difficulty in crossing this boulevard was experienced in the studies for a similar boulevard along the water front in Los Angeles; and there, after careful study, the railways were given several upper-level tracks, switches were carried down to the water front and the driveways were made to interlace with the tracks in exactly such a manner as can be done at this point to eliminate practically any difficulty such as suggested.

There is one feature, however, that I would call attention to. When the population of Toronto reaches, say, two and and a half millions, the necessity will be found for an outer harbor. There will be express steamers from across the lake and from the east and west and they cannot afford to come inside; they must have landing points in an outside harbor where they may touch and go, getting rid of express passengers and freight. That is the only criticism I can possibly find in regard to Toronto's scheme.

This harbor is fundamentally like that of Erie, Pa., except that it is reversed. Also this layout is almost identical with one planned by the Harbor Commission some time ago for the low lands and meadows of Newark — even the shape of the turning basin, the size and direction of the canal and the street system with the railway connections. There is nothing about this whole problem as far as one can see which is not feasible in the extreme, which is not up to date in every sense of the word, and the Commission is highly to be commended for every point, except the minor one which will develop in the future with regard to an outside terminal landing.

LIEUT.-COL. ANDERSON:

There is one point in connection with harbor development generally that I would like to refer to. In a great many cases in Canadian harbors, no bulkhead lines such as

are being laid down in Toronto have been laid down. That is very important in the artistic development of a city. I would like that point to be taken up by this Conference and, if possible, a recommendation made to the Government as to the advisability of laying down such a confining line.

Another point is whether the Town Planning Commission cannot in some way improve the appearance of the water fronts of towns by regulating the class of building or the class of wharf or quay that is to be put up along the water front. I speak somewhat feelingly on this point, for the reason that in our Canadian cities having harbors there is a very great irregularity in the water fronts; their appearance is often very untidy by reason of the disreputable-looking structures that are put up. It seems to me pertinent to your work that some attention should be given to the improvement of the appearance of the water front of coast towns.

MR. N. CAUCHON:

In answer to Colonel Anderson's suggestion I may say that, in the Town Planning Act which will be submitted to you tomorrow, provision is made for controlling the size, artistic appearance and so on of structures. The provision is made very general, because in this country it is not the custom to bind by constitutional provisions. We try to get the right men and give them very wide powers. All plans will have to be approved in every respect by a central governing board, so that if something is proposed that the board considers undesirable, it simply in general terms refuses approval of the plan.

CERTAIN ASPECTS OF CITY FINANCING AND CITY PLANNING

ANDREW WRIGHT CRAWFORD, ESQ.
Philadelphia

THE genius of modern life is to do justice; and yet there is hardly a municipal bond issue by which injustice is not done. Bonds are issued to pay for the construction of things that will not last for the life of the bonds. Thirty-year or fifty-year bonds for street paving, which will have to be completely replaced in ten, or, at most, fifteen years, are constantly authorized. The taxpayers for the last fifteen years of the life of the bonds, in cases where they are to run for thirty years; and the taxpayers of the last thirty-five years, where the bonds are to run for fifty years, are thereby compelled to pay interest and sinking fund charges for a thing which they cannot by any possibility enjoy.

This injustice is not confined to things that are completely obliterated before the end of the life of the bonds. The more common, though less glaring, manifestations of it are in the inadequate conception or execution of municipal work to be paid for through bond issues. All kinds of public undertakings are conceived, either with reference only to the needs of the present or of the immediate future — of not more than the next decade. Fifty-year bonds are issued to pay for improvements which will be quite inadequate fifty years hence, and which will have to be greatly enlarged in capacity long before they are completely paid for through the amortization of the bonds. While a part of the original construction may be useful in the enlargement, frequently all of it is useless and the cost of its removal makes the total cost greater than if unoccupied

ground were available. Thus underplanning entails avoidable expense and is therefore extravagance.

Failure or inability to foresee or want of courage to act in accordance with true vision is responsible for this waste in American municipal expenditures.

It is submitted that no issue of municipal bonds should be sought by city officials, unless the thing to be constructed by those bonds will last as long as the bonds themselves, and, further, unless it will be measurably adequate for the needs of the community at the end of the life of the bonds as well as at its beginning.

The administration that is not consciously and conscientiously endeavoring to foresee and measurably to provide for the needs of the future should be confined in its expenditures to the income of the present.

I have referred to thirty- and fifty-year bonds. As it is becoming the fashion to authorize the issue of fifty-year bonds I shall hereafter refer to fifty-year bonds, noting now that what is said in regard to them is generally applicable to thirty-year bonds also, with an obvious reduction in proportion or in emphasis.

American cities double in population in twenty-five years. A city of 100,000 today will be 200,000 in 1939. This means that by 1964 it will have doubled again and be 400,000, a population four times that of today. This obvious result is not so obvious to the official who is thinking only of the present. I recently saw a computation of the future population of a city made by a newly appointed Secretary of a City Planning Commission, in which he took the total growth of the last fifty years and assumed that the total growth of the next fifty years would be exactly the same. He assumed that the absolute figures would be the same, not the percentage. "Dealing in futures" has heretofore been a little-known art in municipal operations. The figures given above show that in fifty years the average American city will quadruple in population. The logical conclusion follows, that if the

thing now constructed by the proceeds of the sale of fifty-year bonds, is to be commensurate with the needs of the people who in the latter years of the bonds' life will be making use of that thing, and also paying interest and sinking fund charges thereon, the needs of a population approximately four times the present one must be considered if for no other reason than to avoid the doing of palpable injustice.

The efficient life of the thing constructed by the proceeds of municipal bonds should measure their term, that efficiency being measured by adequacy of service to the community, and city planning is indispensable to determine that length of efficient life of a municipally constructed thing. Hence the issuance of city bonds calls for city planning as a prerequisite.

I have purposely qualified the duty of today in this regard as being that of providing "measurably" for the needs of fifty years hence. To provide absolutely for such needs would compel us in 1914 to provide, and to pay proportionately for, a thing four times greater in capacity than required by us who have approximately but one-fourth the financial resources of 1964. That would be injustice to ourselves. How shall we adjust this difficulty? How shall we equitably provide payment for things needed now in a measure, which will hereafter be needed in the same, or a greater, or, conceivably, a smaller measure? This question will find an answer to some degree in a differentiation among the things constructed by the proceeds of municipal bonds — a differentiation of which I give examples, not a catalogue.

In the case of outlying parks, we, who secure them, should pay the minimum. Fifty years hence these parks, now suburban, and now somewhat of a joyous luxury, will be indispensable to their urban neighborhoods. We should be able to issue bonds for such parks with a very small sinking-fund charge today, graded up to a large charge fifty years hence — more: we should make park bonds run

75 or 100 years and make their present amortization charges negligible.

The term of paving bonds should be in the neighborhood of fifteen years and the immediate amortization charge should be very heavy — the charge fourteen or fifteen years hence very light. We who have the pavement at its finest should pay the highest toll.

Stone and concrete bridges are expected to last for seventy-five years. Bonds issued to provide the money for them should run as long. It is more difficult to determine whether their amortization charges should be graded up or down, or kept at one figure throughout. In the case of centrally located bridges, perhaps the last course would be advisable. In the case of bridges in suburban territories, their future greater usefulness justifies a heavier future sinking-fund charge.

The system of main sewers may deserve a diminishing amortization charge — of main streets, an increasing one. Public buildings probably deserve a diminishing charge throughout — though possibly the summit of their serviceableness is neither at the end nor at the beginning of the life of the bonds issued for them, but at some period during that life — probably nearer its beginning than its end; — the deterioration of the physical building must be considered and deterioration begins at once.

On the other hand bonds issued to provide funds for the acquisition of the real estate upon which public buildings are to be erected, clearly deserve an increasing amortization charge throughout. The division for taxation purposes of land, from improvements thereon, will show how markedly the former often increases in value while the latter decreases.

Each other city improvement should be considered likewise.

It is true that some of these suggestions would require changes in state constitutional provisions before they could be carried out. But if city planning should contemplate a minimum of fifty years for physical results, a minimum

argued for hereafter, a delay of four or five years in order to secure constitutional changes is not of paramount importance. Moreover, while the inquiry as to present legal capacities is obviously an important part of a city survey, city planning must necessarily contemplate changes in organic law from decade to decade; it is a part of city planning to plan future laws as well as future structures. Constitutional provisions and acts of legislatures will change during fifty years anyway; there will be much gain if they are planned to meet city-planning requirements *pari passu.*

The desirability of providing for graded amortization charges, though a constitutional change is involved, has been recognized. One example of which there are doubtless others, may be found in a proposed Amendment to the Constitution of Pennsylvania, which passed the last Legislature but which will have to pass the next Legislature and then be ratified by the electors. The Amendment is to enable the city of Philadelphia to borrow 3 per cent over the existing limitation of 7 per cent "for the construction and improvement of subways, tunnels, railways, elevated railways and other transit facilities; for the construction and improvement of wharves and docks, and for the reclamation of land to be used in the construction of wharves and docks, owned or to be owned by the city," and it provides, in part: "In incurring indebtedness for any one or more of said purposes . . . , the city of Philadelphia may issue its obligations maturing not later than fifty years from the date thereof, with provision for a sinking fund sufficient to retire said obligation at maturity, *the payments to such sinking fund to be in equal or graded annual installments.*"

It may be noted in passing that this amendment follows the admirable precedent already established in other states of providing that the borrowing capacity of a city at any time is to be ascertained by excluding from the calculation a credit where the work resulting from any previous expenditure of loan moneys is self-supporting.

Obviously, all of these methods of municipal financing and

each of these differentiations among its objects require the careful study, forethought and provision that are of the essence of city planning; they necessitate city planning, if they are to be more than guesses.

It will not have escaped you that any consideration of municipal bonds in connection with city planning establishes the minimum for the time that should be contemplated in city planning. It does not necessarily establish the maximum. But the minimum usually is in practice the maximum. In Pennsylvania just before the enactment of the minimum wage law, its opponents sought the support of a manufacturer who was known to pay the lowest of low wages, and they asked him: "Do you believe in the minimum wage?" To which he replied: "Sure I do; I pay it!"

If the needs of the population at the end of the life of bonds, fifty years hence, must be considered as a mere matter of justice, obviously, our city planning must contemplate fifty years as its minimum: if in practice that does become also the maximum, I am not satisfied that any harm will result. Think of the inventions or improvements in inventions made during the last fifty years, especially those affecting communication — the telegraph, the telephone, the electric car, the motor car, the motor truck and the German dirigibles — to suggest a few — and I think you will agree with me that it is enough to attempt to forecast the needs of an urban population four times that of today.

A striking example of changes in the problems we have to deal with in city planning was brought out by a report at the meeting of the Third International Road Congress at Ghent in 1913, which Mr. S. D. Adshead thus abstracts:

"A census of traffic taken on a fine Sunday afternoon in the spring of the present year on a certain secondary arterial road leading out of London, showed that the average number of vehicles passing in one hour was: Motor buses 50, motor cars 300, motor bicycles 50, bicycles 100, and horse-drawn vehicles 15. A fair presentation of the Saturday and Sunday crowd.

"This particular section of the road chosen for observation was straight for about one-third of a mile and had no cross roads. Deviations in its alignment at either end prevented excessive speed, but a computation showed that motor buses attained an average pace of 14 miles per hour and motor cars 25. It was a narrow road, being only 26 feet in width between the curbs, but it has a fine surface of wood block which has been recently laid.

"Ten years ago it was paved with macadam and at the same time of day and on the same day in the year it would have been traversed by a continuous procession of cyclists, a few horse buses and other horse traffic of a lighter kind. Twenty years ago it was a carriage drive, a route for agricultural wagons and light tradesmen's carts, and it also provided a means of access to the metropolis for those possessed of a horse.

"The changes in condition of usage which have overtaken this secondary arterial road leading out of London apply with equal force to roads leading out of every town of importance in Europe and America."

As in the period of twenty-five years the average city doubles in population, and as the terms of administrations of city officials are becoming generally four years it follows that each administration will see a growth of the city approximating the proportion of four years to twenty-five years, 12 to 15 per cent. In some cases it will be less; in others more. But each administration must prepare for a growth of upwards of 15 per cent that will occur in the city's size during its term. This will be reflected chiefly on the city's perimeter but it will react also on the city generally, on the central portion especially and on the subcenters intermediately. The more intensive future use of the portions of the city already built requires our present more extensive preparation. Each administration should at least take care of the additions to the physical requirements of public service that will become needed during its term of office.

Municipal work may be divided into two grand divisions; one, the maintenance and operation of the existing municipal plant; the other, the planning and construction of additions thereto, and the replanning and reconstruction of portions of it. In respect to its plan, the commonly accepted analogy that a city and its citizens resemble a corporation and its stockholders fails to be true, and hence is misleading. An ordinary corporation can stop its growth, if its directors or stockholders determine that it shall do so. The growth of the municipal plant cannot be stopped.

The maintenance and operation of the existing plant, to which the attention of municipal officials has been so largely given heretofore, is unquestionably of immediate and pressing importance, but the expert skill and knowledge required for planning for the growth of the city that will take place each year, each ten years and each fifty years is of a higher order than that required for maintenance and operation. Just as it takes a higher degree of expert knowledge and skill to plan and build a house than to make repairs to it afterwards, so it requires a better understanding of the problem, a more expert solution and more efficient construction work to plan and build the additions necessary for the future growth of the city, than to maintain and operate what has already been constructed. It used to be said that a carpenter could build a house and he didn't need an architect to tell him how to do it; many cities have been built, and some are still being built by similarly self-satisfied municipal carpenters. It ultimately costs more money to correct a house badly planned or skimped in its construction, than to build it right in the first place, and it costs the city vastly more to reconstruct itself, where it has been planned on wrong, mean or short-sighted lines, than to construct it well on broad lines, in the first place. And the direct money cost is not the only cost. John Burns well said "mean streets make mean people"; and we may paraphrase the remark by saying that mean city planning makes a mean city, and a mean city makes mean citizens.

City Planning, which has to do with all the elements that make up the physical city, involves not only planning but decision. The study of the one and the exercise of the other are as important duties as any to which a municipal administration can give its attention. During the course of any one day, or any one year, or any five years, this may not appear to be true; if the city were sure to cease to exist with the expiration of any such period, it would not be true, but, considering the entire future life of the city, not the dead past nor the fleeting present, but the far reaches of the future, it is true.

Fortunately the resources of a city increase with its needs. Failure to appreciate the fact that the annual income from taxation will be larger and the annual addition to the borrowing capacity of the city will be greater with each succeeding year, is the reason why the larger and larger plans prepared annually appear to be exceeding the capacity of the city. Our present plans, if they are to be adequate when materialized in the future, must be correspondingly extensive, based on an understanding not only of what the needs of the future will be, but of what the financial ability of that future will be. It is difficult to persuade people that any plan to be carried out in twenty-five years, for which the present capacity of the city is sufficient, is to be regarded because of that fact alone, as probably inadequate, as probably providing for a result at the end of those twenty-five years that will not be commensurate with the existing needs; the sufficiency of the present capacity of the city to finance the plan throws the burden of proof on its proponents to show the enduring sufficiency of the plan itself.

Certain of the more direct financial considerations that have to do with city planning have been discussed at these conferences. The method of paying for various kinds of improvement through assessments on the property benefited, has been emphasized as an admirable American method, where the sole question is how to finance a municipal improvement. The method of excess condemnation, where,

in addition to providing, in whole or in part, for the cost, it is desired to exercise some control of abutting property, as by the regulation of occupation, the recasting of lot lines, the determination of lot and building widths and depths, the determination of minimum, maximum and proportionate heights of buildings, the regulation of the relation between buildings on adjoining lots, the prohibition of blind walls — again a suggestive list, not a catalogue — has been urged as a European method desirable and, if these ends are to be obtained, necessary for adoption here. Considerations of expediency will determine which method is the more available in individual cases. Generally, in undeveloped sections, assessment for benefits is the better method, while in developed sections, excess condemnation is preferable.

It should be borne in mind that where the power of excess condemnation is used, any loss as well as any gain will be the city's, whereas in the case of assessments for benefits, the loss, if loss there be, will be the property owners'. Greater justice is thus often secured by excess condemnation.

Frequently the combination of the two methods will be advantageous: to condemn immediately abutting property to a desirable lot depth and control its development by the creation of easements, will spread the resulting increase in values over a greater territory than if such abutting property were left uncontrolled in private hands. Immediately adjoining the excess area so condemned, there will be consequently an enlarged area subject to assessment for benefits. And, in addition to the returns, in the one case, from the sale of the excess property, and, in the other, from the special assessments, both areas will thereafter return annually a larger sum in taxes than before, thus taking care of proportionate interest and amortization charges on bonds that may have been issued to finance the work; or, if no such bonds were issued, thus securing a greater income for general municipal uses. The territory actually feeling an increment in value will exceed both areas.

In his admirable paper entitled, "Paying the Bills for City Planning" delivered at our Boston Conference, Mr. Nelson P. Lewis showed the justice of assessing the cost of rapid transit systems on the properties within their spheres of influence. A recent Philadelphia investigation confirmed the experience of New York City in this regard, by showing that a newly constructed rapid transit line so concentrated the normal general increase of the entire residential areas of the city within its own sphere of influence, as to cause an actual loss for six years in all the other residential areas combined, despite the erection of some 21,000 new houses in these other areas.

These experiences enable the exercise of municipal economy in another important respect.

Before a city proceeds to the undertaking of the construction of such lines, or before it permits their construction, the city should acquire the real estate it will need for all public purposes, whether for parks, playgrounds, parkways, streets, schoolhouses, police and fire stations, public libraries or what not, in the territory that will be tapped; otherwise, if it waits until it has enormously increased the value of such property and the amount, therefore, which it will have to pay, it will be guilty of rank folly. Elementary prudence dictates action before this unearned increment has actually accrued — unearned, that is, by the owners' money, but earned directly by the city's expenditure of money paid by the taxpayers, where the city constructs the system; and this increment begins long before completion of the new lines. City Planning enables the exercise of similar far-sighted economy by present-day expenditure, in many respects other than the rapid transit system — parkways, other main thoroughfares, parks, river-front improvements — in fact in the case of every public work where real estate, increased in value by its proximity to one public work, will be needed for another municipal service in the reasonably new future.

It will be observed that I am not here insisting upon the

effect of the opening of parks, for instance, on adjacent land values. I am taking it for granted that there is no longer need of persuasion on this point: such testimony as the following: " During the sixteen years following the laying out of Central Park, the average increase in the assessed value of real estate in the other parts of the then city of New York was about 100 per cent, while in the three wards then adjoining the new park, the increase was approximately 800 per cent " — has been duplicated in greater or less degree so often, that we are now able to exercise more far-sighted economy. Prompt expenditure is often the truest economy.

The broad financial aspects of city planning are frequently so general and illusory, so incapable of mathematical demonstration, that they have not been appreciated in America at anything like their financial worth to the community.

The manifestations of this monetary benefit fall naturally into two classes, namely, the benefit to citizens through the attraction and circulation of outside money, the magnetic cause of which is to be found in certain city-planning works; and the benefit to the city treasury in the addition to the city's annual income caused by higher assessments for taxation purposes of properties within the spheres of influence of such works. As an example of this lack of appreciation of opportunities, consider the great sum annually lost by American treatment — if utter neglect of glorious opportunities can be called " treatment " — of their municipal river banks. Think, first of course, of the beauty and attractiveness of European water fronts, the Thames Embankment with the Hotel Cecil and other high-class properties crowding to its edge; the Seine; the hundreds of other European city rivers; and then, secondly and soberly, and in your counting-houses, compute the municipal money value of those works: in your calculations, assess the actual values of the properties fronting on the Seine, and compare them with what they would be if the Seine looked like the Chicago

River; or the Schuylkill below Callowhill Street in Philadelphia; or Jones' Falls in Baltimore; or the Anacostia Flats in Washington. Compare the actual values of the properties fronting on the Thames Embankments with what they would have been if that river's banks looked the way they did at the beginning of Queen Victoria's reign. Then apply your tax rate to the differences and you will get an index to the primary loss caused by our American ignoring of the scenic value of river fronts. I am emphasizing the municipal value of riparian developments mainly non-commercial; but there is a spirited, kaleidoscopic, fascinating scenic value and, hence, financial value, to the municipality in commercial water fronts developed by masters who seek by-products as well as direct results.

So far, of the loss to the city; now of the loss to the citizen.

Compute the value to the citizens of European cities of their river fronts. How much money would Parisians *not get a chance at*, if their river were as dilapidated, as uglified as ours are generally? The sums left by visitors to Paris each year are variously estimated from fifty million dollars up to several times that sum. How much would Parisians lose if the Seine were not a gigantic work in sculpture?

There are not wanting indications that the financial value of a beautiful thing to the community as individuals as well as a municipal corporation is becoming more widely appreciated. In a recent decision concerning the Fairmount Parkway, Judge Sulzberger, of the Court of Common Pleas of Philadelphia County, said that such a feature "has an effect directly utilitarian. It increases the attractiveness of the City, induces strangers to visit it, and thus enlarges trade and commerce."

It is a pleasure to note that we are beginning the redemption of our water fronts. Boston has begun it — true, in a hesitating, apologetic way, so as not to offend Beacon Street — still it has begun it. You, here in Toronto, promise to do vastly better. Your combination of a commercial

and non-commercial development promises to set the precedent for American cities that has been needed so long. The early realization of your plans is therefore a matter of financial concern to practically every American city.

If beauty pays, how much does ugliness cost? Do we realize how dearly we are paying every year for our investment in rectangular, gridiron schemes of unattractiveness? City treasuries are losing money and citizens far more. Let us never forget, when discussing parkways, river embankments, park and playground systems, group plans and other physical developments, that there is another side to the picture, the side of the city without parkways, without river embankments, without parks and playgrounds, without civic centers — the city crowded with overhead wires, with its sidewalks covered by overhanging, threatening signs, the curbs lined with ugly street fixtures. Which pays? Which costs?

Discussion

Mr. John P. Fox, *New York City:*

I want to bring one point before the Conference which I hoped Mr. Crawford would mention. In order to carry out his plan, it can be done most simply if the bonds are issued under the serial plan and not the sinking-fund plan. Under the serial method, as you know, your bonds are paid off, if they are fifty-year bonds, one fiftieth every year. This is the simplest and cheapest way.

The city of New York a short time ago issued $65,000,000 worth of bonds. Under the sinking-fund method, these bonds will cost the city in the end at least $15,000,000 more than they would under the serial method.

In Massachusetts the sinking-fund method is prohibited. In other states it is still the rule.

I hope the Conference will sometime take up the matter of issuing bonds because it is extremely serious and important.

MR. JOHN NOLEN, *Cambridge, Mass.:*

I am very much pleased that this question of municipal finance has been brought forward in the broad and able way that it has by Mr. Crawford, because it seems to me that in some respects it is the most important problem to turn attention to just now. There is a good deal of agreement on many phases of City Planning, but we always come up finally against the question, How are we going to pay the bills? Part of that of course is the problem of current expenses and current taxation; but I believe a very large part of it, in fact the larger part of it by all odds, is the question of providing for the big charges that are coming as a matter of capitalization in these city-planning enterprises.

Municipal bonded indebtedness seems to be in a very haphazard form in the states. One finds varying regulations in different states; an entire lack of anything approaching uniformity. For example, the borrowing capacity of some states is as low as 2½ per cent on the assessed valuation, and in other states as high as 25 per cent. One or the other is certainly unsound. The average, however, will be close to 7 or 10 per cent. We have got to recognize a need for a very much larger borrowing capacity based on full assessed valuation than we have had heretofore if such city-planning enterprises as have been discussed are going to be at all feasible.

Then there is in many of our cities, especially in the smaller ones, a strange disinclination to issue bonds and incur public indebtedness. Cities go without things for a much longer period than they should, simply because they have this fear of municipal indebtedness; although that indebtedness incurred for the purchase of land and for needed permanent improvements would result in a very great economy in the long run to many of these cities.

In a city of 100,000 people, the possibility of providing the manifold services that are necessary in streets, buildings, parks, playgrounds, to say nothing of water-front

improvements, on a total capital of say a million dollars — that is about the sum that an average city of 100,000 would have — is preposterous, when we think of what the capital of a small bank would be, or of the capital of a railroad in comparison with it. It is plain that the city is thus handicapped beyond hope of effective action.

One point more. So far as I know our cities, in considering the city debt, do not take into account their assets. To a limited extent they do take in water works and similar income-bearing utilities, but, so far as I know, they do not take in as an asset the land which they own. I have found again and again that when you follow up the financial condition of cities you find that they have such substantial assets that practically there is no net debt at all.

There is a strong inclination to look upon borrowing by the city or other public body as exactly like borrowing on the part of an individual — something to be avoided if at all possible. But we should remember that the only method by which a city can get capital funds is by borrowing. It is not possible for a city to save $10,000 this year and so on by annual installments until it gets $500,000, and then make a needed improvement. It must proceed in other ways and issue bonds in order that it may have the capital when needed to carry out projected improvements.

Mr. Nelson P. Lewis, *New York City:*

It is difficult to overestimate the importance of the subject so lucidly discussed by Mr. Crawford, and I am impressed with his suggestions for the amortization of municipal obligations in a manner more satisfactory than that in common use. Mr. Fox has suggested a greater use of the serial bond, and while I believe in serial bonds, I do not think they are adapted to all circumstances. I dislike to give you horrible examples of the abuse of this method of financing, but I want to briefly describe an operation which, in comparison with some of the financial methods which have lately been under discussion, seems Napoleonic

in its conception and execution. In 1865 three of the towns of Westchester County, lying immediately north of the city of New York, secured legislation which permitted them to issue bonds in sums not exceeding $3,500, $6,500 and $2,500, respectively, for the purpose of meeting the cost of improving a certain road leading from New York City northwardly through Westchester County. The bonds were to carry 7 per cent interest and were to be serial bonds for not less than $500 nor more than $1,000 each, one bond of each town to be paid off each year. A couple of years later the act was amended by striking out the words " not exceeding " and the limitation as to the amount of the bonds and substituting therefor the words " such sums as may be necessary." The result was that one of these towns issued 178 different bonds to the total amount of $112,500, and under the serial plan the last one of these bonds will be paid off in the year 1980. Another town issued bonds to the amount of $278,000, the last one of which will mature in the year 2147. What the third town did, I do not know, but the two above referred to are now a part of the city of New York, and that city has been obliged to assume the obligations, including in its annual budget a sum sufficient to pay off the two bonds falling due in that year, together with 7 per cent interest on all of those outstanding.

In contrast with this policy the city of New York is now borrowing its money for the repaving of streets at city expense for a term of ten years. Possibly it has gone somewhat to the other extreme, as the average pavement will last more than ten years, but it is certainly a safer and saner method for financing improvements of this kind.

Reference has been made to the fact that it will probably be necessary to increase the debt-incurring capacity of some of our cities, making it a larger percentage of the assessed value of real estate. New York City has met this problem in this way: Certain enterprises are self-sustaining, such as rapid-transit construction, water-supply

and water-front improvements. The Constitution of the State has been so amended as to permit obligations incurred for such enterprises to be exempted in computing the city's limit of bonded indebtedness. The determination as to whether they are self-sustaining is left with the Appellate Division of the Supreme Court, to which body must be submitted full data showing whether or not the receipts are providing for interest and amortization of the debt incurred for them, with a margin of safety. A determination covers only a limited period, and when that period expires the evidence must again be submitted to the court with a request for the renewal of the exemption. If through extravagant management or an unwarrantable reduction in rates it is found that these projects are no longer self-sustaining, the outstanding bonds issued on their account are immediately charged up with the other obligations computed in estimating the city's limit of indebtedness. A curtailment of expenditures is then necessary until the city shall have again contracted its obligations within the constitutional limit which is imposed.

HON. FREDERICK C. HOWE, *New York City:*

I think this is so big a subject that at some stage in our proceedings we ought to devote an entire session to it. A business man thinks in terms of his financing all the time and everything he does is based upon his income and outgo. Our cities, on the other hand, have been, in America at least, screwed down to a financing operation which has made it almost impossible for them to perform their legitimate and proper functions. Historically that was due to the fact that fifty years ago many of our cities aided railways, and our legislatures proceeded to make it almost impossible for the cities to engage in many activities which were essential to their life. That condition has been carried on into this century and in consequence our cities are unable to do many of the things that they ought to do for a well-ordered city life.

To meet this situation it seems to me the first step is to differentiate between the different kinds of improvements and to frankly secure that where a proposed change is of so much immediate advantage and benefit to certain classes of property which abut upon it or are neighborly to it, then that particular activity or that particular improvement ought to be carried by special assessment bonds, which should be extended far beyond the kinds of things for which we have issued them in the past. We build our streets and sewers by special assessment bonds. I think parks and boulevards, the building of subways, and many activities which specifically improve adjoining property, ought to be cared for by a type of bond different from a bond which is a burden upon the entire community. If we were able to differentiate our bonds in that way and set aside a portion of our bonded indebtedness and carry it on the property immediately benefited, that would relieve our borrowing capacity to that extent.

Second, I think we ought to empower our cities, which in America are subject to limitations ranging all the way from 2½ to 25 per cent of their assessed value, to provide, as I think Ohio has done, for bonds issued against the activity itself.

In other words, if the city wants to develop its harbor, if it wants to buy a water plant, a street railway, an electric-lighting plant, anything that we call a self-supporting activity, the city in that case ought to be empowered to issue bonds and sell them. The bonds would be a lien upon that specific property, and the earnings of that specific property. They should be sold in the market the same way as a public-service-corporation bond is at the present time.

By such a provision as that many American cities would be relieved from the limitations which now make it impossible for them to go ahead with improvements which are essential. I think the city of New York, which is up to its limit at the present time, might employ that method of financing certain new kinds of activities.

Third, I think the American cities have too small debts. Our indebtedness in this country in the average town runs $30, $40, $50 or possibly $60 per capita. In New York City it is very much more than that. I think it is something like $200 per capita. In England the per capita indebtedness of towns runs from $100 to $200. Over there they realize that there are certain things cities ought to do or ought to own, in order that their life may be full and complete. I think our cities ought to be granted very much greater freedom to incur indebtedness than they at present enjoy.

If they cannot possibly realize their city possibilities, they cannot become cities in any sense of the word.

E. M. Bassett, Esq., *New York City:*

Referring to the point made by Mr. Crawford to the effect that amortization of bonds should be adjusted so that it will bear lightly on the earlier period, I want to speak of the Rapid Transit Act of New York. The new subways are being built under this act by the city and are owned by the city. The act provides that the operator of the subway must make stated payments sufficient to amortize the cost of the subway within the period of operation, but it does not compel the amortization to be at the same rate each year, purposely leaving it so that the bulk of the amortization can take place in the latter part of the term. The contracting parties are allowed to adjust the amortization to the probable periods of greatest earnings. This provision of the law was utilized in the recent subway operating contracts where the amortization payments for each year are stated in a carefully prepared table. This was considered to be preferable to fixing a uniform annual rate for amortization for just the reasons that Mr. Crawford has expressed. Anyone wishing to look into these amortization provisions more carefully could obtain a copy of the law and of the dual contracts from the Public Service Commission, New York City.

MR. E. P. GOODRICH, *New York City:*

Perhaps I am a little bold, but I propose to discuss something absolutely different and opposite in idea from the methods described by Mr. Crawford and some of the gentlemen who have been speaking tonight.

A business man will look at a proposition in which he has to pay 300 per cent for an improvement as an extravagant one. Five-and-a-quarter-per-cent-bond interest is often paid by a municipality, which with three-fourths-of-one-per-cent sinking fund (making 6 per cent total) must often be paid yearly, and that perhaps over a fifty-year period. Fifty times 6 per cent is 300 per cent, which the improvement for which such bonds were issued costs that community.

It may be that in a municipality in which an increase of population is taking place at the rate of 100 per cent in a decade, it will be possible and proper to load the future with a large part of the cost of an improvement. But the fact that you are burdening the improvement with 300 per cent on the cost means that you are burdening the future with 200 per cent extra.

I will grant that it may be proper and right to issue bonds under certain circumstances for a period of one year, possibly, while taxes are being collected, or that certain self-sustaining ventures like water or dock or transit bonds should be amortized out of earnings, but to pay for the large amount of improvements which are building at the present time by American cities with bonds which may run for a long time, seems poor business, to say the least.

I can cite one city of about 300,000 inhabitants which has decided to spend one million a year in improvements. Now if fifty-year bonds are at once issued to the extent of $16,000,000 that one million may be paid in interest and sinking fund at the rate of 6 per cent annually, they will get sixteen improvements, and all of the million each year will be paid out in interest and sinking fund. Whereas if

they put that million into one improvement each year, at the end of the period they will have fifty improvements.

There is another scheme of payment which I would like to suggest, which is actually in use by some of the Federal departments of the United States. The full obligation is accepted, of a drydock, for example, for the navy yard, — but payments are made one-fifth yearly for example, according to advertised contract, so that the payment is spread over five years or approximately the time during which that improvement is under consideration. That does not involve the issuance of bonds. It spreads the cost of the improvement over a period which is relatively easy to handle. It commences to produce a return at the expiration of the construction period and is not a burden in any sense of the word.

The same community which has decided to issue one million per annum in improvements has made this arrangement: about 70 per cent is assessed locally for local benefit; the balance of 30 per cent being immediately put into the tax levy for the succeeding year. Each improvement is paid for "as you go." The future will take care of itself and its own improvements, and the present, which has the benefit of each improvement, will be the gainer, and there will be a future corresponding gain.

Mr. W. R. Davidge, *London, England:*

I should like to ask a question rather than to be in the position of giving any special information. I should like to ask whether you have anything like the system in England that we call the Public Works Loan Boards.

This is a government department which makes it its special business to lend money to municipal authorities, and also to individuals, for works of public utility. For instance, if a private individual, a corporation or a municipal authority wishes to carry out a housing scheme, they make application to the Public Works Loan Board and give a mortgage of 3½ per cent for the desired loan.

The period of the loan varies with the character of the work, but for housing properties, for the purchase of land and erection of houses, the loan may be had for eighty years. Of course our larger municipalities, such as Liverpool, London and so on, have special loans which are practically equivalent to your bonds.

A private individual borrowing for such a purpose as housing is on a different footing either from a public-utility corporation or a municipal authority. The private individual can borrow up to about one-half the value of the property, the public-utility board up to two-thirds and a municipal authority can get a little more still.

The Public Works Loan Board is a national system for the issue of bonds. It has what we call local loan stock, which is issued to the public at 3 per cent, and the money is then issued to the local authorities at about 3½ per cent.

MR. CRAWFORD:

As far as I know, we have no such system here as they have in England. Practically what it amounts to, as I understand from a discussion of the matter with Mr. Adams, is, that instead of issuing bonds which banks or individuals subscribe for, a city issues bonds which a stated branch of the British Government takes up, and that branch can exercise a certain amount of control over their issuance.

In regard to Mr. Goodrich's suggestion — I am very glad to have it made — the system of issuing bonds is one which every corporation recognizes as sound. It is a means by which they get money with which to make money. When a municipality issues bonds it gets money, not in order to give its shareholders, that is its citizens, a large return in dividends, but in order to give them something they need — parks, playgrounds, or some other public facility — and I think if it is a valid thing for an ordinary business corporation to issue bonds, it is just as valid for municipalities to issue bonds.

Mr. Lewis spoke of the principle acted on in New York of giving a credit against outstanding indebtedness as soon as a public work erected by loan moneys becomes self-supporting. That is recognized in the proposed amendment to the constitution of Pennsylvania to which I referred.

As Mr. Lewis spoke of special assessments, I want to refer for just half a minute to a situation in Philadelphia. You will recollect that in his Boston paper, "How to Pay the Bills for City Planning," Mr. Lewis demonstrated the justice of assessing the cost of transit facilities against the property benefited.

Now in Philadelphia, we have just had an instance that proves the justice of that, which is very striking. Between 1901 and 1907 a rapid-transit system was erected in West Philadelphia, and it so concentrated values within its sphere of influence as to injure other areas. If we assume that the city were divided into five residential areas, A, B, C, D and E, — E being the one benefited by the transit lines, — although in the areas A, B, C and D, not benefited by the transit line, 21,000 new houses were erected, yet at the end of these six years the total assessment of these areas was less than at the beginning; while in Avenue E, in West Philadelphia, within the sphere of influence of the new transit line, there was a very large increase in values, something like one hundred millions, the transit line costing from twenty to twenty-five millions.

Now that meant that the standard increase which would ordinarily be spread over the whole city, was concentrated within that area. Yet that area did not pay one cent for the cost of that improvement; not one cent additional to what all the other areas paid, although the other areas were very definitely damaged by that concentration of values.

MR. G. TRAFFORD HEWITT, *London, England:*

Mr. Crawford's subject is one of such vital importance, especially in Canada, that I think a whole evening might have been very reasonably given up to it.

During the last two years the question that has been asked in London financial circles more than any other has been: Has not Canada been overborrowing? Have not the Canadian municipalities been grossly extravagant? I was speaking yesterday to one of the leading bankers of Toronto on this question, and he said to me: "Do you know that it is an appalling fact that very many people do not realize that in your city of London during the last ten years you have financed Canadian enterprises, railways, municipal bonds and industrials to the tune of fifteen hundred million dollars?" Now the very first thing that struck me when I first came to Canada was the absolute lack of control of municipal expenditures. The day has gone by when the municipalities of Canada are going to get their money at the cheap rate they have got it in the past. Too many Englishmen have come out here to Canada and seen with their own eyes. Members of these big financial houses in London come out here almost every summer and see the condition; and what Canada needs today is a board here equivalent to what we call in England the Local Government Board. I believe that it is bound to come, and such a board as that would have a tremendous effect upon what I might call reëstablishing Canadian credit in England.

Now one of the functions of that board in England is this: When a municipality wants to borrow money for improvements, it has to get the authority of that board before it can offer the public its bonds; and that board is constituted of men who are above and free from what I might call the pettiness of party politics. They are not men who are in the pay of one party or the other. And there I touch, I know, upon a very sore spot indeed, but it is a very vital one. That board should be an absolutely impartial board, and if any municipality out in the Far West, that no one ever heard of fifteen years ago, comes into the London market with a municipal issue of a million sterling, I think the British investor and I think the Canadian and American investor should know whether that municipality

is justified in asking for that money. What is that money going to be spent for? Is it a legitimate purpose, or is it to be spent for the improvement of roads and the upkeep of sidewalks which are really being created, not for the benefit of the city at all, but for the benefit of the Canadian real-estate speculator? That board should absolutely sanction the loan of every Canadian municipality and should be a Dominion Government board, so that every single issue that is put out by a municipality in Canada would carry the hall mark of the Dominion Government. That hall mark, gentlemen, would be practically equivalent to a guarantee by the Dominion Government, and the municipalities in that way would be able to get their money cheaper than they are getting it today.

Hon. George Langley, *Regina, Sask.:*

Mr. Hewitt's remarks concern a matter of immense importance to those of us who are connected with Canadian municipalities. I occupy a peculiar position in this matter. I am the Minister for Municipal Affairs in one of the newer Provinces of Canada, one of two men who in the two newest Provinces of Canada have that position entirely to themselves. In the older Provinces the management of municipal affairs is generally mixed up, I think, with half a dozen other matters, and they are attended to as a side issue entirely.

There is one point that I would ask the meeting to bear in mind — that whatever may be said about Canadian municipal indebtedness, as far as I know, in connection with my own Province — and I believe it is true in the other Provinces very largely — in hardly a single case has there been default in meeting our liabilities.

The financial interests in Great Britain may hold that we have overborrowed. They have a perfect right to hold that. But the test of a man's business standing is not a general idea on the part of the people he deals with that he has borrowed too much money; the test is: does he

meet his liabilities? Of course a man living in London, even a financial man, and dreaming about Canada — as most of the people in London do dream — may have an idea that we have borrowed a great deal more money than we ought to have borrowed. Why, I am of opinion, sir, that we have not borrowed nearly so much as we should have borrowed.

Now our good friend comes out with an entirely new suggestion, as he thinks, but as a matter of fact, sir, it is not new at all. During the last session of our Legislature in Saskatchewan, we did the very thing that he says we ought to do. We created a Local Government Board. And we created the Local Government Board along the very lines that he has suggested. Up to that time I, as minister, had exercised supervision. But I am free to say that the supervision was not anything so effective as I should have liked it to have been. I was not provided with any staff for the purpose of effective examination into the borrowings of the various municipalities. Now we have a board of three members. We endeavored to make it as non-political as we could. It is very difficult to make anything non-political in Canada, as all you Canadians know. And, by the way, that is the complaint that our friends from the south suffer from a little more than we do. We have appointed the board for a term of ten years; we have given them absolute power of examination and veto. No municipality or public borrowing body in the Province of Saskatchewan today can issue any debentures until those debentures have been approved by this board, which consists of a lawyer — one of the best municipal lawyers we have in the West — an engineer of the very highest standing, and a business man of between thirty and forty years' experience. Already the effect of the board is being felt. For executive purposes the board is under my supervision, and a month ago the chairman, in speaking of the work of the board, told me that the mayor of Regina mentioned to him that the city was going to issue debentures on a certain matter; and the chairman of the board said to the mayor: "I should be very

sorry to have our board turning down debentures proposed by the city of Regina." The result was that the debentures were never proposed, and I believe our people, before they think of issuing debentures, ask themselves this question: Will those debentures approve themselves to this new Local Government Board?

HON. D. W. WILBUR, *Mayor, Poughkeepsie, N. Y.:*

There is one phase of this problem that has not seemingly been touched on at all here tonight, and that is the question of what ratio the bonded indebtedness of a municipality should bear to the taxation. I believe that that is really the crux of the whole matter, and that your bonding privileges in the end will be measured by your ability to pay interest without impairing your ability to carry on the other activities of the city, which must necessarily be borne each year through the tax budget. If you place a 10-per-cent limit upon the cities as their borrowing capacity — that is, 10 per cent of the assessed valuation of real estate — you will then be paying about 25 per cent of your annual tax levy, if you place your tax levy at $20 per thousand, as interest charges; to that must be added anything that you may add to your tax levy for amortization charges of bonds. It occurs to me that every city should have a dead line in taxation, and for the city that I represent I want to place that dead line at not more than $20 a thousand — make it less if possible. In this way each city for itself can determine really how far it should go in borrowing money for someone else to pay.

I think the gentleman here who represents the financiers of England might take cognizance of the tax ratio that is being imposed upon the municipalities that are seeking to borrow money. That would go a long way toward assuring him whether or not these cities are going too far and too rapidly in borrowing money.

MR. THOMAS ADAMS, *London, England:*

I should like to say just a word in defense of this hallucination which Mr. Langley ascribes to London financiers. Since I have come here, I think the hallucinations are on this side of the water. He tells us that we dream in London, but when people come over and tell us about oil and land that increase in value in a night from $15 an acre to about $20,000 an acre, you cannot expect us to take all that in at once. We have to exercise some business sense and find out whether there is really any sound basis for these propositions. The serious point I would like to put to Mr. Langley is this: It is not quite sufficient in a financial matter that you should have paid your obligations. No doubt it is very important, but a banker might be absolutely satisfied that you will pay your obligations, and yet want security nevertheless. You must have absolute security when you advance money. When you come to the old country with real-estate propositions which do not hold water, you cannot expect to increase the confidence of those who invest.

Mr. Hewitt is much more able to speak on this matter than I am, but I should say that probably a good deal of the lack of confidence which he ascribes to overborrowing on the part of the municipalities is not so much due to overborrowing as it is to the extent to which real-estate operations have been carried on in connection with these city developments, to the extent to which borrowing has been indulged in on fictitious values which are very unlikely to be realized in our lifetime, or even within the lifetime of many who are younger than we are. If you want to maintain the confidence of the British investor, I should say you not only want to show that the municipalities are not overborrowing, but that your real-estate operations have a basis not merely on the expectation of incoming population, but on capacity to realize those values within the next ten or twenty years. It is the fever of giving values to land and making it difficult for housing operations to be

carried out in your cities that is going to be one of your chief difficulties in connection with Town Planning.

If the Canadian people want us to maintain our confidence in their securities and in the growing and advancing values of their real estate, then I think the best way to do that is not only to bring the matter under the control of Local Government Boards, but also to exercise some little control over this feverish speculation in land which allows you to look so far into the future and creates hallucinations for which I think we are not responsible, but which sometimes interfere with the London market. I think it is a very serious matter, and one which Canadians ought to take to heart, that it is essential to the growing prosperity of this country that you should not only get healthy immigrants, but that you should be able to get cheap money; and in order to get cheap money, you have to maintain their confidence in you of the great markets of the world.

THE PROGRESS OF THE YEAR IN CITY PLANNING

FLAVEL SHURTLEFF, ESQ.

Boston

THE remarkable growth in the number and efficiency of plan commissions is the conspicuous feature of progress in the city-planning movement during the last year. In 1907, Hartford, Conn., had the only official plan commission in America. At the Conference of 1913 in Chicago 22 plan commissions, appointed either under authority of a general Act or local ordinance, were reported. In the last twelve months 40 have been added and half as many more recommended by mayors to city councils.

Massachusetts, with 30 commissions, is far ahead of any other State. The Massachusetts Legislature of 1913 passed an Act which makes mandatory local planning boards in all cities and towns with a population of 10,000 or over. But the mandate of the Legislature alone, without a penalty for its non-observance, is hardly the cause of city-planning activity in Massachusetts. Pennsylvania has an Act equally mandatory for all cities under 100,000, passed the same year as that of Massachusetts, and only eight cities out of sixty with a population above 10,000 have plan commissions as against twenty-four cities in Massachusetts out of thirty-two with a population above 10,000. Nor is it the more widespread knowledge of City Planning nor the keener local interest which has put Massachusetts cities in the forefront. Pennsylvania cities, before 1913, compared very favorably with the cities of any other State in their intelligent appreciation of the merits of the planning principle.

The Massachusetts Homestead Commission, appointed in

1912, should have much of the credit for making the city-planning movement "take on" in Massachusetts. The mandatory legislation of 1913 contained a provision which in effect makes the Homestead Commission a State planning board. It is given the specific duty of urging on municipalities the appointment of a local planning board, and of outlining a program of activity. Acting under the authority of this provision, the Homestead Commission called a State City Planning Conference in the fall of 1913, attended very generally by delegates of the cities and towns of Massachusetts, and since then has been constant in its effort to have planning boards appointed.

The planning boards of Massachusetts are not perfunctory bodies; their members have been excellently chosen; they have shown an intelligent grasp of the nature of the work, and particularly of the difficulties of fitting a new agency into the scheme of municipal administration without antagonizing established administrative agencies. Certainly, the Massachusetts method of a central planning board has been justified by the results, and even the most ardent home rule cities cannot in fairness take exception to the tactful handling of the situation by the Homestead Commission, or belittle the importance of the State Conferences on City Planning which have been inaugurated in Massachusetts.

Any lingering doubt about the usefulness of an additional administrative agency with definite planning functions must be set to rest by the record of accomplishment of plan commissions during the last year. The most significant thing in this record is the general recognition of the need of a planning agency by city councils and administrative agencies, and the growing spirit of coöperation between these established organs of government and the new board. To cite some of the more striking examples:

Newark. The Newark Plan Commission was appointed in 1913; the report of its expert advisors appeared early

in 1914. On May 1, 1914, the City Council authorized a bond issue of $215,000, for carrying out the first recommendation suggested in the report of the Plan Commission, and at the same meeting authorized a bond issue of $1,600,000, for the construction of a new street, known as Diagonal Street, which was the second recommendation in the Commission's report. The Public Service Commission of Newark has adopted very nearly all the suggestions of the Plan Commission with regard to the rerouting and the rescheduling of the street transit of Newark and the Public Service Corporation is beginning to carry out the suggestions.

Brooklyn. The Brooklyn City Plan Commission appointed a subcommittee of ten to report on a plan for downtown Brooklyn. Though the report was made only in the spring of this year, one of its most important features, the location of the new Court House for King's County, has been officially adopted.

New York. The Height of Buildings Commission, appointed just before the Chicago Conference, has had enacted by the Legislature of 1914 an amendment to the charter of the city of New York which gives the Board of Estimate and Apportionment power to create districts with different restrictions as to height of buildings and percentage of lot covered, and to create residence districts from which will be excluded trades and industries.

Chicago. Besides considerable progress on the 12th Street improvement and the Boulevard Link improvement, the Plan Commission in Chicago has played a most notable part in winning what is described as the hardest fought civic battle ever occurring in Chicago. It was concerned with the location of railroad terminals on the west side of the city. The plan of the railroads which interfered seriously with the carrying out of the Burnham plan for Chicago has been finally abandoned and in the ordinance covering the location of the new Pennsylvania passenger and freight stations, which are advertised to cost between $40,000,000 and $50,000,000, practically all of the eighteen recommen-

dations made by the Chicago Plan Commission for the creation of new streets, viaducts, bridges, etc., were incorporated.

Philadelphia. The most important single project is concerned with the readjustment of all the freight-carrying lines in the southern section of Philadelphia between the Delaware and the Schuylkill rivers. The abolishment of grade crossings (at a cost of $18,000,000), the relocation and elevation of railway lines, the acquisition by the city of water-front property for the purpose of constructing municipal piers, and the general revision of the city plan over an area of approximately 4,500 acres of land, are all included in this project, the details of which have been agreed upon between the city and the railroad companies and incorporated in an ordinance of the city approved in February, 1914.

A very important improvement commercially is the widening of Delaware Avenue for two miles along the water front. The new street will vary in width from 150 to 250 feet. Continued progress is being made on the establishment of Fairmount Parkway. Over 200 buildings have been torn down along the line of this diagonal, and the reservoir hill at the northwestern end is being leveled off preparatory to the construction of the municipal Museum of Arts.

Boston. Boston had no official Plan Commission till the spring of 1914, but its Transit Commission has completed plans for considerable extensions of the underground transit, all of which are now under construction. The much-needed creation of another street in the heart of the congested business district connecting Washington and Tremont streets, plans for which have been proposed for several years by unofficial planning bodies, was made possible by legislation of 1914, and the street is now being cut through, at an estimated cost of $1,300,000.

St. Louis. In accord with the recommendation of the Plan Commission, the Municipal Assembly has passed an

ordinance creating a sanitary district embracing 15,000 acres, in the western and southwestern parts of the city, and 52,000 acres outside the city. In the outer portion are located five small cities and a score of suburban villages. The plan of organization is designed to create a comprehensive drainage system for 150,000 people now dependent upon isolated systems and surface drainage. A new charter will be submitted to the voters in June, which includes a number of recommendations from the Plan Commission designed to facilitate the carrying out of parkway, recreation center and public-bath propositions by simplifying the methods of condemnation of private property and making use of the principle of special benefit as a means of distributing the cost of improvements.

This is by no means a complete catalogue of the municipal improvements adopted by city councils on the recommendations of plan commissions. The principle of coöperation is as well illustrated in the small cities and towns, and particularly in the very recently appointed planning boards of Massachusetts.

The year 1913 was the banner year for city-planning legislation, much of which was crowded into the closing legislative months of May and June. Many of the important administrative measures have already been noted, but one development in the scope of the legislation creating plan commissions is worthy of special attention. With the exception of the Act creating the Hartford Commission in 1907, the earlier acts create merely advisory boards with little or no initiative, — boards which are given the power to study the problems of physical growth and make reports and recommendations to council. The legislation for third-class cities of Pennsylvania introduced a new element by requiring the submission of all ordinances which relate to the physical development of the cities to the plan commission for approval, and the ordinance for the city of Cleveland, which was passed on the eleventh day of this month, devel-

ops to the highest degree the power of a plan commission to check legislation affecting the city plan in the following provision which is here quoted in full:

"Hereafter no public building, harbor, bridge, viaduct, street fixture or other structure and appurtenance shall be located, constructed, erected, removed, relocated or altered until and unless such plan, design or location shall have been submitted to and approved by the Commission; and no such work when completed shall be accepted by the City until and unless it shall have been approved by the Commission as provided in Section 77 of the City Charter.

"Whenever any ordinance or resolution relating to the plan, design, location, relocation, removal, extension or alteration of any such work is introduced into the Council, the City Clerk shall upon its introduction furnish the Commission a copy of such ordinance or resolution. The Commission shall, if it is deemed advisable, make a report in relation thereto for the consideration of the Council. If no report is submitted within twenty days after the receipt of such copy the Commission shall be deemed to have approved the provisions of such ordinance or resolution."

Legislation less likely to receive attention in a city-planning survey because it does not bear so obviously the city-planning label, is that concerned with the acquisition of land, viz., the procedure in the condemnation of private property for public use, and the methods of distributing the cost of land acquirement. The following table shows the adoption of the imported excess condemnation principle: —

EXCESS CONDEMNATION LAW

Massachusetts statute of 1904.
Ohio statute of 1904.
Virginia statute of 1906.
Connecticut statute of 1907 and 1913.
Pennsylvania statute of 1907.

Maryland statute of 1908.
Massachusetts constitutional amendment 1911.
Wisconsin constitutional amendment 1912.
Ohio constitutional amendment 1912.
New York constitutional amendment 1913.

So far as is known, the Pennsylvania Act is the only one that has been used and the Supreme Court of Pennsylvania, in the case of the Philadelphia Mutual Insurance Company *v.* City of Philadelphia, has declared the Act unconstitutional. Already an amendment of the Pennsylvania constitution has been prepared and will be submitted to this year's Legislature. Massachusetts added an excess condemnation amendment to its constitution in 1912, and several cities, by special Acts of 1913, were given the right in connection with public improvement to condemn more land than is needed for the actual construction of the improvement. In the next year doubtless a test case will be carried to the Supreme Court of the United States, on the ground that private property is taken without due process of law in violation of the 14th amendment of the Federal Constitution. Until constitutional questions are decided municipalities will be timid in the use of excess condemnation.

Several States have simplified the technical details of condemnation procedure and broadened the use of special assessment principle, notably New York and Massachusetts. The New York legislation is particularly interesting to members of this Conference as it incorporates the principles laid down by Mr. Lewis in his admirable paper presented at the Boston Conference in 1911. The widening of Seventh Street, New York, is an excellent illustration of the application of the Act.

Legislation creating residential districts, either by limiting certain specified districts to residences, or by excluding from specified districts all or many kinds of trades or industrial occupations, was passed in 1913, in New York for second-class cities, in Minnesota for all cities over 50,000,

in Wisconsin and in Illinois. In so far as this legislation protects residential districts by excluding certain named industries on the ground that they endanger the general welfare of the residents, it does not differ materially from the police ordinance found quite generally in both Canadian and American cities. The catalogue of excluded industries is probably somewhat lengthened. But the New York Legislature prohibits any use of certain named areas except for residences of a particular kind, and immediately the question is raised whether such an act can be defended as properly within the police power. This most interesting subject will be fully presented to you at a later session.

The progress of City Planning in the future will center in the activity of plan commissions. With commissions of long tenure the kind of study will be given to the problem which will result in better ways of doing things, and these improved methods will be stated in legislation until our city-planning machinery will turn out cities and towns more nearly perfect to work in and to live in.

PROTECTING RESIDENTIAL DISTRICTS

LAWRENCE VEILLER

Secretary, National Housing Association

DOES the constitutional right to life, liberty and the pursuit of happiness include those important considerations which our English cousins in their recent town-planning legislation refer to as the "amenities"?

This is a question which many people are beginning to ask themselves in America.

It is only in very recent years that we have been conscious of the necessity of doing something to protect our citizens in the enjoyment of the right to lead a quiet, contented, rational existence and bring up their families free from the noise, discomfort and nerve-racking atmosphere which generally surrounds our industries.

Heretofore we have gone along in a truly American fashion of mixing up in a haphazard way business and residential districts without regard to the rights of others or the welfare of the community.

But during the last few years in a few of our larger cities we have awakened to the folly of this disorderly and thoughtless method of living and are beginning to ask ourselves whether these discomforts of living are really necessary after all.

I must frankly confess that we have cast somewhat longing eyes at the shores of Germany and wondered whether there was something so essentially different in the atmosphere of Germany and America that it would be impossible for us to engraft upon American civilization the well-established principle of zoning that has been in operation for a generation or more in that country.

"A man's a man for a' that," and it has seemed to some of us that there was not such an essential difference

between the human characteristics of the German and the American as to make it a frantic imagining or Utopian dream for even us in America to expect that the time might come when we might insure to our citizens the right to live in a peaceful and untrammeled atmosphere. When one comes to consider it, after all it is not the most rational method to employ, the method that we have heretofore followed and considered as the only method, namely, of mixing up in a heterogeneous mass the places where our people live with all sorts of objectionable industries.

I think if we frankly search the records we shall find that this is not really, after all, a new impulse, but only a wider realization of a very desirable consummation to be sought after.

From the earliest days even in America those of us who have not been especially enamored of noise and of a hurly-burly life, have sought so far as mere man could, acting alone and without the powerful support of government, to control his own neighborhood and protect the little home into which he had put his earnings (or the large, luxurious mansion into which he had put somebody else's earnings, as the case may have been) and where he expected to bring up a family and live for the rest of his life.

And so we find for many years in America an effort through private covenant, or what is popularly known as "property restrictions," to secure the result desired.

Unfortunately this method, which has been followed to a greater or less degree throughout all parts of the country, has not proved entirely satisfactory; being a private arrangement between private individuals and being only a mutual agreement or contract, it has proved to be easily dissolvable. Furthermore, in many of our states the courts have held that property restrictions imposed some years back by the then owners of property are no longer binding and of effect when the neighborhood conditions have changed and when the succeeding property owners have desired to dissolve the terms of such agreement.

So it is not strange, with the increasing difficulties of city life, that men have turned to other methods and endeavored to see whether they could not find a means by which the right of a man to the enjoyment of his property in peace and quiet might be saved to him and his family and not be easily invaded.

Private covenant having proved ineffective, the use of the police power of the state has finally been sought.

How far the police power will stretch in America is still a question to be decided. One thing is certain, it will not extend beyond what the engineers call "the limits of elasticity."

But just how far *will* it stretch? What can we do in America, with our constitutional limitations, to conserve to property owners and to dwellers in our cities the right to live in a peaceful, quiet, secluded neighborhood free from the invasions of business and of industry and with the amenities of civilization?

That the police power cannot be stretched to cover merely æsthetic considerations is clear from the decisions of our courts.

How far, then, may it extend?

Our most eminent jurists agree in the opinion that it may extend to almost infinite reach so long as it clearly includes matters which affect public health, safety, morals or the general welfare, provided always, of course, that the exercise of such power be a reasonable one.

As yet no one has sought to define the meaning of that important term "general welfare." It is a most important one for those interested in progress. I take it to be the American equivalent of our English city planners' "amenity."

What has been Done in the United States

Such efforts as have been made in the United States to extend the use of the police power in this direction have

all been within the past few years, the earliest attempt having been in the state of California five years ago. Here in 1909 the first effort to establish residential districts and to exclude therefrom certain industries was made in the city of Los Angeles.

In the year following a similar attempt was made in Michigan, in the city of Grand Rapids, and more recently, viz., in 1913, there seems to have been an epidemic of regulation of this kind, the states of New York, Wisconsin, Minnesota and Illinois having all passed legislation of this nature.

So far as I can ascertain, all these various attempts were made in an unrelated way by each state, without knowledge of what the other was doing; in fact, in most cases I believe without knowledge of what California had done four years previous. And we are furnished that delicious illustration of fancying ourselves pioneers blazing new trails and then discovering afterward that we were only following in the footsteps of earlier adventurers.

The limitations of this meeting permit me only to *outline* some of the distinctive features of these different schemes.

California Leads the Way

The Los Angeles ordinance differs in many respects from the districting plans of other cities in that it lays the greater emphasis upon the establishment of industrial districts, whereas the schemes embodied in the laws of other states concern themselves with residential districts. The difference, however, after all, is chiefly a question of emphasis.

The entire city of Los Angeles, with the exception of two suburbs, is divided into industrial and residential districts. In addition to the industrial districts there are what are termed "residence exceptions"; in other words, small spots where certain unobjectionable industries are permitted.

The industrial districts vary greatly in shape and size. The largest has an area of several square miles and measures five miles in length and two miles in width. The smallest district comprises a single lot. As a whole the industrial districts are grouped in one part of the city. The " residence exceptions " are small, with the exception of one which is about a half mile in area. None of them covers a greater area than two city blocks, and in many cases each does not occupy more than one or two lots.

The line that is drawn between the industrial district and the residential district in the Los Angeles scheme is that all kinds of business and manufacturing are permitted without restriction in the industrial districts, while in the residential districts certain specified businesses of a distinctly objectionable nature are prohibited. Those industries which are not enumerated in the prohibition are permitted.

In the residential districts all manufacturing but that of the lightest kind is forbidden, but less offensive business and manufacturing establishments which are excluded from the residential districts may be carried on in the " residence exceptions," which seem to be a sort of " twilight zone " between the two extremes.

The Law Retroactive

A distinctive feature of the Los Angeles scheme is that certain industries, even if already established in the residential district before the district is created, are to be excluded; that is, it becomes unlawful to maintain these industries even though they may have been in operation for many years before the district was created.

Among those excluded are the following: Any works or factory using power other than animal power in its operation, or any stone crusher or rolling mill, machine shop, planing mill, carpet-beating establishment, hay barn, wood yard, lumber yard, public laundry, wash house, coal yard,

briquette yard, riding academy, or any winery or place where wine or brandy is made or manufactured.

So much for the California enactment. As it is the only one which has been tested in operation through any considerable period of time and is also one which has been tested in the highest state courts, it assumes especial importance for the rest of the country.

It differs in a number of marked respects from the attempts that have been made in other cities, and before discussing the limitations of such statutes and the essential principles to be observed in formulating them if they are to be sustained by our courts, it may perhaps not be inappropriate to briefly state what has been done in the other states.

In Michigan in 1910 the Common Council of Grand Rapids, without any specific authority from the legislature, passed an ordinance establishing residence districts, and subsequently this ordinance was amended by creating additional residence districts. The validity of the ordinance was attacked in the courts, and the Superior Court of Grand Rapids held that the ordinance was unconstitutional and void, among other reasons on the ground that "such ordinance constitutes a taking away of the property of relator without due process of law, in violation of the provisions of the Fourteenth Amendment of the Constitution of the United States."

As the court did not advance any reasons for reaching this conclusion, and as the case was not carried to the highest court, and the whole issue was affected by the fact that the Common Council had received no specific grant of police power from the legislature to enact an ordinance of this kind, this decision is of no great value to us except as indicating some of the things *not* to do in grappling with this problem.

The Wisconsin Act

The legislature of Wisconsin in 1913 (Chapter 743) passed an act authorizing cities of 25,000 or more to set aside exclusive residential districts. The act thus affects the cities of Milwaukee, Green Bay, La Crosse, Madison, Oshkosh, Racine, Sheboygan and Superior. Part of the act reads as follows:

"The Common Council in cities of . . . 25,000 or more are authorized to set apart portions of such cities to be used exclusively for residential purposes, and to prohibit the erection and maintenance of factories, docks or other similar concerns within such districts. Such cities may in like manner restrain the encroachment of business houses upon purely residence districts, require the consent of the majority of landowners and residents of such districts, once improved, before such business is permitted on such streets, and make as low a unit as one block. The power granted may be exercised upon the initiative of the Common Council or upon the petition of ten or more residents in the district or block to be affected." And the act goes on to say that "the enactment of ordinances excluding factories, docks or other similar concerns from residential districts shall be a final and conclusive finding that factories operated in such district are detrimental to the health, comfort and welfare of the residents of said city."

We understand that under this power the city of Milwaukee either has recently or is about to establish a number of residential districts. Neither the act nor the ordinance has as yet been tested, so far as we are able to ascertain.

Minnesota Follows Suit

At about the same time that the state of Wisconsin was acting, the state of Minnesota was taking similar action. The legislature of that state in 1913 passed an act

(Statutes 1913, Chapter 420) empowering cities with a population in excess of 50,000 to establish exclusive residential and industrial districts. This law therefore applies to the cities of Minneapolis, St. Paul and Duluth. Acting under authority of this law the City Council of Minneapolis on February 28, 1913, passed an ordinance establishing certain residential districts. So far as we can ascertain, the validity of this ordinance has not as yet been tested.

The state of Illinois in the same year also passed an act empowering cities to establish residential districts and exclude therefrom certain other classes of buildings, but this was vetoed by the Governor upon an opinion from the attorney general that such an act would be unconstitutional.

As a resident of the effete East, I would not for a moment have you believe that these important efforts in the cause of progress have come only from the Far West or Middle West.

New York State Acts

At the same time that Wisconsin, Minnesota and Illinois were acting, the Empire State of New York was taking similar action. In the Housing Law for Second Class Cities (Chapter 774 of the Laws of 1913) will be found a similar plan for the establishment of residential districts. In that act a plan is provided for the establishment of " residence districts," and the erection of any building other than a private dwelling or two-family dwelling in such districts is prohibited. The residence district may be made as small as one side of a city block.

Acting under authority of this law the cities of Syracuse and Utica have passed ordinances establishing such residential districts. Here, too, so far as can be learned, no attempt has been made to test the constitutionality of this provision, though many " sea-lawyers " have rendered horseback opinions, or perhaps it would be more appropriate to say sea-leg opinions, that any such scheme is unconstitutional.

The great city of New York has also taken similar action within the last two months, the legislature of 1914 having passed an enabling act authorizing the Board of Estimate and Apportionment of that city to divide the city into districts and to regulate the use of buildings in each district on a different basis. A commission is to be appointed by the local authorities of New York City to determine the boundaries of districts and to work out the details of this plan.

Canada the Pioneer

It would be inappropriate in this presence for me to attempt to discuss what has been done in the Dominion of Canada along similar lines, except to say that I am informed Canada took action in this direction nearly five years before the United States even thought of it. As early as 1904 the legislature of the Province of Ontario amended the Municipal Act by adding thereto a new section known as Section 541-A. This authorized the Councils of cities and towns by a two-thirds vote of the whole Council to pass and enforce such by-laws as they might deem expedient . . . in the case of cities only "to prevent, regulate and control the location, erection and use of buildings as laundries, stores and manufactories"; and later on from year to year the scope of the act has been enlarged so as to apply also to "stables for horses for delivery purposes, butcher shops, blacksmith shops, forges, dog kennels, hospitals, or infirmaries for horses, dogs or other animals."

It was also provided that the location, erection and construction or use of any building in contravention of any such by-law might be restrained by injunction proceedings at the instance of the municipality; and it was further provided that none of the above provisions should apply to any buildings then erected or used for any of the purposes mentioned so long as their present use continued.

In 1912 this provision was extended by empowering

cities having a population of not less than 100,000 to "prohibit, regulate and control the location, on certain streets to be named in the by-laws, of apartment or tenement houses, and of garages to be used for hire or gain."

Acting under authority of this law the city of Toronto in 1913 — and I imagine also even during the present year — has passed a number of by-laws of this nature.

If we include also the general enactment in the building code of the city of Baltimore, state of Maryland, by which it is provided that no permit for the erection of any building may be given by the local authorities without the approval of the Building Inspector and the Mayor that its erection will not increase the fire hazard, depreciate the surrounding land values or have a disadvantageous effect upon the general welfare of the residents in the immediate vicinity, we have included in our summary of the enactments on this subject all those which the writer, using the most diligent effort, has been able to get track of.

Essential Principles Involved

What, it may be asked, are the important considerations to be borne in mind in seeking in America to utilize the police power to regulate the character of neighborhoods and to protect citizens in the enjoyment of residential districts free from the invasion of objectionable industries or that they will not be subject to adverse decision by our courts?

It will be seen from a study of the different enactments that have been described that they differ in many respects and in some essential particulars.

In the first place, should we limit the industries or uses which we exclude from a residential district to certain specified ones that may be enumerated in the statute or shall we prohibit all industries in our residential district and forbid there any use other than for purposes of residence?

In the California law we find that only those industries

are excluded that are enumerated, and presumably only those are enumerated which the authors of the law believe can be shown clearly to be objectionable from the point of view of public health, safety, morals or welfare. In the Minneapolis ordinance and in the Milwaukee ordinance the same principle is followed and specific industries are enumerated.

It has become an axiom, however, in legislative experience, that specific enumerations are extremely dangerous, for the very simple reason that the enumerator is apt to forget many points which should be enumerated and may possibly include in the enumeration things which are subject to attack. The California law illustrates this admirably.

In the Los Angeles ordinance it will be recalled that where the objectionable industries prohibited in the residential districts are enumerated we find among other things "any winery or place where wine or brandy is made or manufactured."

The question at once suggests itself, why exclude brandy and permit whiskey?

It may be that the author of the law had his individual preferences, but we submit that this should not be a controlling consideration!

Viewed from any point of view, the California enumeration or any enumeration has its weak points. How are we to treat under such a plan the case where a man has invested his money in an attractive dwelling with the idea of permanently living there for the rest of his days; then suddenly he finds his property values injured, the whole character of the street endangered, because someone has chosen to construct a small retail store in one of the houses? One store of this kind leads to another, and within a short time the residences are driven out.

The plan of enumeration would not cover such a case, unless the very general description were used of any place where anything is sold, but that would be too sweeping, as

many important business transactions are consummated in private residences.

The writer questions also whether it would be possible in all cases to show that all of the industries enumerated in the Los Angeles enactment are in themselves dangerous to life, health or safety or injurious to the general welfare.

In the New York Second Class Cities Law everything but private dwellings and two-family dwellings and private garages or stables at the rear of the lot is excluded. In this act no attempt is made to enumerate objectionable industries or objectionable uses of property in residential districts, but all uses other than for purposes of residence are by the act itself excluded.

The Problem of the Multiple-Dwelling

An important feature of this scheme which should not be lost sight of is carried out in the New York law, namely, the exclusion from strictly private-residence districts of huge multiple-dwellings such as tenement houses and apartment houses and hotels.

A similar objective was evidently at the base of the more recent Toronto enactments, as the ordinance of that city applies to the prohibition of tenement houses and apartment houses and public garages and stables.

None of the statutes which have been cited, neither the ordinance of California nor the laws of Wisconsin or Minnesota, will be of any value in the effort to keep apartment houses, tenements and hotels out of private-residence districts, as the laws of these states simply give to the local authorities in the cities affected the right to differentiate residential and industrial districts. The multiple-dwelling, either apartment house, tenement house or hotel, is of course a residential use of property, and such a building could not therefore be excluded.

It is of very great importance in many of our rapidly developing cities to keep apartment houses and hotels out

of the private-residence districts and to discourage so far as we legally can the erection of multiple-dwellings. Notwithstanding its manifest convenience and great advantage from many points of view, the multiple-dwelling is unquestionably a source of detriment to the development of any city and interferes greatly with proper social conditions and the development of true civic spirit. A city cannot be a city of home owners where the multiple-dwelling flourishes.

Of course there are cities such as New York and some of the older Eastern cities where the multiple-dwelling is the chief type of house that we can expect to find at the present day in the future development of the city. Here, therefore, it will be necessary to distinguish between the prohibition of multiple-dwellings and the prohibition of industries. In working out regulations for New York City, for instance, the local authorities will undoubtedly have to deal with this somewhat puzzling question.

Thus we see there is a wide variance in the practice of the West and the East. Which is the better course to follow?

It depends very largely on how far we want to go. If we want to keep a residence district strictly for residence purposes, the method employed in the New York law is more likely to accomplish the result than the method employed in the Los Angeles, Milwaukee and Minneapolis ordinances.

From the point of view of sustaining such an enactment in the courts there is much to be said in favor of the latter provided the industries enumerated can be clearly shown to be injurious to health, safety, morals or the general welfare.

It is interesting and significant to note that the enabling acts in all three states, namely, Wisconsin, Minnesota and New York, are couched in very broad terms and empower the cities affected to exclude from residential districts practically all buildings other than those used for residences.

Shall the Law be Retroactive?

The next question which confronts us, and one which is of great moment, is, shall our statutes be retroactive? Shall we reach back into the past and disturb industries or uses of property which have been maintained for many years past? In other words, shall we, after a given date, no matter what the conditions, exclude from a newly created residential district all industries or objectionable uses to which property may be put?

This has been the method employed in California. It is also the method employed in the Milwaukee and Minneapolis ordinances, but it should be noted that these ordinances in excluding certain industries from residential districts are limited solely to those industries which can be shown to be objectionable from the point of view of public health, morals or the general welfare.

Having, however, once enumerated these industries, they may not be maintained in the residential districts, no matter whether the industries were located there before the district was established or not.

The New York law does not go so far. It does not seek to affect anything but the future. It accepts the principle that, where a district has already gone and industries are well established, it is futile to attempt to save it for residential purposes.

It has seemed to the writer that we would have a far better chance of sustaining such enactments in our courts — certainly in our Eastern courts, which are more conservative than those further west — if we limit the enactment to the future and do not seek to attempt to interfere with vested rights and interests already well established in the enjoyment and use of property for industrial and business purposes.

The Property Owner's Right to be Heard

A third consideration of great importance is, how far the residents and property owners of the district affected by the restriction shall determine whether such restriction shall apply. Here there are two elements of danger.

If the law permits the decision to rest solely with a majority of the property owners affected, there is likelihood of its being set aside by the courts on the ground that one group of property owners cannot deprive another group of property owners of the right to use their property in such way as they may wish.

On the other hand, we must be on our guard not to place the determination of this question solely in the local legislative body or permit it to act without giving the property owners whose interests are affected an opportunity to express their views and have some voice in the determination of the question at issue.

It is apparent, therefore, that both of these elements must be considered. The restriction to be valid must either originate with or have the affirmative approval of a substantial majority of the parties in interest whose property is affected. It must also have the approval of the government, that is, of the local legislative body.

Geographical Boundaries to be Small

Another important consideration from the practical point of view, if not so essential from the side of the legality of our plan, is that the plan shall be a workable one and that the geographical boundaries of the district affected shall be such as to give a scheme that will not unduly stop the progress of a city nor interfere with the development of business where business development is necessary and desirable.

It is because of the recognition of these considerations that it has been found necessary, as I understand the ex-

perience of Germany also indicates, to make the unit of the district extremely small. As has been already pointed out, in California the unit has sometimes been a single lot, and this is the case in some of the German cities.

For American practice the best unit seems to the writer to be one side of a city block. Anything larger than this is bound to cause trouble. It will not do to make the entire city block the unit of our residential district, because it is well recognized that we have in many cities conditions where one side of a block located on some broad avenue is best adapted for business purposes; in fact the only development that could be appropriately and profitably made at a given time on such a location is of that nature, whereas the other three sides of the block may be located on distinctively residence streets, and the most appropriate use for them is a residential one.

With the unit thus limited to one side of a block, it is possible to give to each part of a city the special treatment that it needs, — business in one case, residences in another.

Another important consideration from the point of view of workability is that the plan shall be flexible so that the industrial progress of the city may not be checked. It ought to be possible, therefore, to have the restrictions that are imposed removed or removable by as simple a process as the one by which they are imposed, and even in a residence district where the restrictions are in full force and effect it should be possible, especially in those cases where all industries are excluded, to permit certain industries with the consent of a substantial majority (two-thirds or more) of the owners affected and where the establishment of the industry is also approved by the local legislative body.

Attitude of the Courts

Thus far the plan to establish residential districts has been tested in but few cases. The Los Angeles ordinance —

the most drastic of all, and the pioneer as it happens — has been tested in three important cases, all of which went to the highest court in the state of California, the Supreme Court of that state. In all these cases the law was strongly sustained. The cases are important ones. They are known as

ex parte Quong Wo (161 Cal. 220; 118 Pac. Rep. 714).

ex parte Montgomery (163 Cal. 457; 125 Pac. Rep. 1070).

ex parte Hadacheck (132 Pac. Rep. 589).

In all of these cases the court took so broad a view of the police power and laid down principles of such far-reaching moment to all American cities that one is tempted to quote at length from these decisions, but limitation of time does not permit. Those who are interested in this subject will find in the references cited a most interesting study.

In the first case, that of *Quong Wo*, the issue involved was the right of a Chinese laundry to be maintained in the residential district. The laundry had been there for many years before the district was established, but the court held that the industry could no longer be maintained.

The *Montgomery* case involved the right of a lumber yard to be maintained in a residential district. Here again the ordinance was sustained and the lumber yard discontinued.

In the third case, the *Hadacheck* case, the industry involved was that of a brickyard. Here the petitioner was able to show that the land contained valuable deposits of clay suitable to the manufacture of bricks and much more valuable for brickmaking than for any other purpose, that the owner had through the entire period of his ownership used the land for this purpose and had erected on it the kilns, machinery, etc., necessary for such manufacture, and that the brickyard had been established at that location for

a number of years prior to the establishment of the residential district.

Notwithstanding this strong position of the industry affected, the court held that it could not be maintained longer in the residential district and that the ordinance was valid. In its decision the court said that the police power was not only for the suppression of nuisances, but that "it extends to and includes the regulation of the conduct of all business and the use of property to the end that public health or morals may not be impaired or endangered."

These striking and important decisions, sustaining and broadening our conceptions of the police power, have been a source of great comfort and encouragement to the writer of this paper, who, however, has had his buoyant optimism somewhat diminished upon being informed by some of his legal friends in the East that it is not safe to follow the decisions of the California courts, as they are not esteemed highly by the legal fraternity. We trust that this may prove to be a sectional and narrow view of fundamental principles of human liberty.

The Canadian enactments, I am informed, have also been tested before the courts as to the validity of the by-laws, which have in each case been sustained, though no case has been of sufficient importance as yet to warrant its being carried to the higher courts. In the United States no case has gone to the United States Supreme Court.

So much for the decisions sustaining laws of this kind. Two adverse decisions have also been had. The one in the case of the Grand Rapids ordinance already referred to and tested only by a local court, and a more recent decision with reference to an ordinance of this kind enacted by the city of Chicago without specific grant of power by the legislature, where an effort was made to prevent the establishment of retail stores in a residential district under the general nuisance power (Ill. Supreme Court, People *v.* City of Chicago, 103 Northeastern Reporter, 609).

To Sum Up

I think it must be evident to the unprejudiced observer, from a consideration of the above facts, that a new use for the police power has been discovered and that it *is* possible to protect residential districts from the invasion of objectionable industries and to preserve to the inhabitants of those districts the enjoyment of their homes and property under rational conditions of human existence.

In seeking legislation of this kind, however, there are certain important considerations which should be followed if we wish to succeed.

First, we must have a broad enabling grant of power from the legislature authorizing the individual city or a group of cities to establish residential districts.

Second, we must prohibit outright in such residential districts all uses of property except for strictly residential purposes, or we may enumerate certain industries that we desire to have excluded from such districts.

Third, if we desire to exclude large multiple-dwellings such as tenement houses, apartment houses and hotels from private-dwelling districts, we must so draw our enactment as to exclude everything other than private dwellings or two-family dwellings, or we must exclude such multiple-dwellings by specific enumeration.

Fourth, wherever we make any specific enumeration of industries that may not be permitted great care must be taken to enumerate only those which can be shown to be injurious to health, safety, morals or the general welfare.

Fifth, it is better not to make our laws retroactive, but to concern ourselves only with the future development of the neighborhood.

Sixth, we must not place the final determination with regard to the establishment of districts solely in the hands of the property owners affected, nor on the other hand must we leave it solely to the local legislative body. Both elements must have a right to be heard in the determination.

Seventh, the geographical boundaries of the district must be small so as not to interfere unduly with the commercial development of the city.

Eighth, the plan of operation must be flexible and the restrictions imposed removable by as simple a process as the one by which they were imposed.

If these considerations are followed it is believed that laws of this kind can be made even judge-proof.

Discussion

Alfred Bettman, Esq., *Cincinnati:*

To an extent not realized by those who, like Great Britain, have not a written constitution, in the United States the advance in social legislation has to be fought out on the floor of the court room in the discussion of and judgments upon constitutional questions. This question of protecting residential districts is in the United States today a question of constitutional law. Its purely legal aspect may therefore be interesting to you, because those who believe in that feature of City Planning which Mr. Veiller has discussed, will have to win their victory in the United States by demonstrating that such legislation is constitutional.

The battle of social legislation has been to overcome the extreme individualistic interpretation of the Constitution of the United States. The provisions of the Constitution in regard to private property were construed to mean that private property was to be left alone to develop itself in its own way and exclusively for the profit of its owner.

When the development of the needs of the community disclosed that this extreme individualistic view was dangerous to community welfare, the courts developed a counterforce in the doctrine known as the "police power," namely that the State has a right to restrict the owner's use of private property for the promotion of public health or public

safety or public comfort or public welfare. Now those terms are very broad, especially "public welfare."

Public welfare has been defined as including all that relates to the promotion of the social and economic improvement of the community. It would seem as though almost anything could be done under the police power. And yet, as Mr. Veiller has pointed out, the courts have frequently declared particular city-planning ordinances or residential-district ordinances unconstitutional. However, the police power is elastic. There is no defined limit to it, except the limit of public opinion as to what is promotive of the public welfare. In other words, the courts will interpret police power as the power to promote that which the public has, through experience and education, learned to believe is necessary for the public welfare; and although the courts might at all times be a little behind the opinion of the City Planning Conferences or of social workers, still, as these opinions spread throughout the community, the courts will gradually realize that the community has learned a new need of restriction of private property for the benefit of community welfare, and then the courts will find such legislation constitutional.

In this matter of the constitutionality of city-planning or residential-district legislation, about the only limit that has so far been definitely and rigidly set by the courts of the United States is that private property may not be restricted for the sake of purely æsthetic satisfactions. In the present stage of constitutional law in the United States, it is therefore necessary to show that the particular residential district ordinance or statute under discussion has behind it a motive other than an æsthetic motive, has a motive related to safety or comfort or order or health. Therefore it would seem wise that the courts be educated, so to speak, by having the actual enactment of such legislation preceded by some scientific study of the city's plan, so that the residential-district ordinance may bear a relation to the plan of the city, and the plan should be devised

with a view to the health or the comfort or the safety of the people of the city.

In other words, if the history of a particular ordinance before the court shows that it was framed, not arbitrarily, not merely with the idea of the City Beautiful, which the courts do not protect at the present time, but after a distinct and thorough study of that layout of the city which will best promote the safety and the comfort and the health of its people — if the ordinance is preceded by such a study, then the attorney who is defending the ordinance before the court can easily demonstrate that it is not a piece of legislation in which the council arbitrarily located the residential and industrial districts, but that the motive behind the ordinance was genuinely the promotion of public order, public safety and public health.

For instance, let the promoters of a residential-district ordinance first have some leading physicians make a study of the effect of noise upon the nervous system of human beings; and then, if that study should show that the lessening of noises and turmoil and hurly-burly will tend to lessen the extent of nervous diseases in the city, let that be followed by a systematic study of the distribution of residential and industrial districts which will, by directing the course of vehicular and pedestrian traffic on the streets, cause a protection of the residential districts from noise. Now if an ordinance were preceded by such a study of the effect of noise upon health and the effect of the division of the city into residential and industrial districts upon the concentration of noise and the creation of zones of quiet, no court could say that the ordinance was passed solely for the promotion of æsthetic satisfactions. The history of the ordinance would show it to have been designed for the promotion of health; and when the court can feel that an ordinance is a genuine and scientific attempt to promote public health, the court will be apt to find it constitutional.

The reduction of congestion and the promotion of adequate transportation facilities have an obvious relation to

public comfort, and the promotion of public comfort is a legitimate part of the police power as defined by the courts. By scientifically locating the industrial and residential districts of a city, the course of transportation can to some extent be directed toward a reduction of congestion. If, for another instance, a proposed ordinance to protect residential districts were to be preceded by a careful study of the city's transportation problem and of the distribution of residential and industrial districts which will, by directing the flow of travel, pedestrian and vehicular, tend to reduce congestion, and if the ordinance be based upon that study, the motive behind the ordinance will obviously be the promotion of public comfort, and the promotion of public comfort is a portion of the police power as recognized by our courts. In short if, in the framing of these ordinances, the larger aspects of this problem be investigated and the ordinances be based upon the investigation, and then the investigation and the larger aspects of the problem be brought before the courts, our courts will soon realize that the protection of residential districts, as other features of city planning, is promotive of public safety, health and comfort and therefore is a new, modern, scientific and justifiable form of restricting the free use of private property for the benefit of community welfare.

Frank Backus Williams, Esq., *New York City:*

About ten years ago, an energetic New Yorker brought back with him from the German cities he had just visited highly colored official maps of intricate and curious pattern. The newest art movement was not yet born, much less known in this country, or we, many of us, might have taken these creations for cubist or futurist pictures of vague and mysterious but highly suggestive import. In fact, these maps were portrayals of the district or zone system of city planning, at that time firmly established in Germany, where it originated, but practically unknown here. Today at least six of the United States and more

than one of the provinces of Canada, have authorized their cities and towns, or some of them, to introduce a system which, if not consciously based upon the German zoning practice, is founded upon the same fundamental principle. It is a record of this remarkable progress, both in the courts and in city construction and administration, which Mr. Veiller has just given us — progress due in no small measure to his efforts.

Notable, however, as this advance is, and wisely directed as it has been, along the lines of least resistance, it is nevertheless but a first step. Mr. Veiller is quite right in giving his paper the title "Protecting Residential Districts"; he inevitably dwells upon the "amenities"[1] of the householder. So far, what we have done along districting lines has been, practically, housing without city planning instead of housing as an element of city planning; so little has districting been a part of the planning of the city as a whole, so little has it been used to aid in the solution of more general city problems.

The districting of urban land is the putting of that land to its highest and most specialized use. Like division of labor or of industry, it is in line with the tendency of the age. The result, in the case of land, as in the case of labor or industry, is an increase in usefulness and value. The seller gets a higher price for the land, the purchaser finds it more useful and profitable, the state imposes and collects a higher tax on it. The specialization is thus of general advantage.

The tendency of districting is to convert interests in land, — which in undistricted cities have proved to be of uncertain and fluctuating value, — from speculative into conservative investments. It is like changing a somewhat risky 10-per-cent bond or stock into a conservative one. The

[1] "Amenity," in my judgment, includes only a part of what, in the law of the United States, is meant by "general welfare." See "Report of Heights of Buildings Commission," New York City, 1913, pp. 7 and ff.

result is an increase of fully 50 per cent in its value, with no lack of buyers.

There are three factors in the districting of land, — choice, development and protection. In a residential district, for instance, land naturally adapted to housing is chosen, so far as possible; the laying out of parks, boulevards, tree-lined streets or playgrounds adds to its value and appropriateness; but all this is insufficient if objectionable manufactures are not excluded.

So, too, heavy industry naturally seeks the water front, if nature has provided one; but the water front alone does not make a manufacturing district, — warehouses, docks and marginal railroads are most important; and cannot profitably be furnished if manufactures are not grouped.

In the completest and most profitable examples of any type of district these three factors, — choice, development and protection, — although present in varying degrees and of different value in the different types, are nevertheless all necessary.

On this side of the ocean almost the only form of districting to be found is that of the residential district protected from the intrusion of industry, which Mr. Veiller has so fully described in districted cities. Outside these districts, a jumble of all sorts of residences, and all sorts and degrees of industry are permitted. Evidently with us only one of the applications of the principle of specialization of land, that of the residential district, has been made, and in an imperfect and incomplete form.

It is interesting to note that in Germany districting began in the form in which it is found in this country today. Under the first Napoleon cities in what subsequently became South Germany, were authorized to create what were called "protected districts," within which, for the benefit of those who lived within them, offensive manufactures were forbidden. Outside these limits residences and industries of all sorts and degrees were allowed. This provision in favor

of the amenities of life later became Prussian, and, later still, Imperial German, law.

In Germany, as we know, specialization in the use of land did not stop here. Slowly there were evolved, from this embryo, many varieties and degrees both of residential and of industrial districts. We now find there districts of large houses, of modest houses, of workingmen's homes, of apartments and tenements, of heavy industry, of lighter industry, of minor industry and, in some cities, many more.

The Germans are a practical people, or they would not today be the formidable rivals that they are of Canada, of the United States and of England, in the markets of the world. Specialization in the use of urban land, originally of the simple form that it is here, has received its full development in Germany because experience proved that it paid. In the fullness of time, and in forms suited to our peculiar needs a further development may also be predicted here, for the same reason.

In Germany, as we all know, districts are related and interrelated, heavy industry, for instance, being placed so that the prevailing winds will blow the smoke away from the rest of the city, and workingmen's districts, in many cases, being separate from but near, industrial districts, to the profit and economy of both, and the relief of the transportation system of the city as a whole. This is districting as a part of city planning, the districts being factors in the plan of the city as a whole; and will come here for the same inevitable reasons that it came in Germany. It is most encouraging to have Mr. Bettmen demonstrate so clearly as he has just done that this can be accomplished constitutionally in the United States. The fact that the location of districts on petition of property holders, as is provided for in the New York State Housing Law for Second-Class Cities, of 1913, and as is the practice here in Toronto, lends itself with much difficulty, if at all, to such results, is a grave objection to this method.

Germany has found that some of the larger problems of

city life and growth can be solved only by the aid of districting according to a general plan. It is again most encouraging to learn from Mr. Bettman that we in the United States may constitutionally use districting for such purposes.

Districting in Germany, the country of its origin, developed as a remedy for congestion. City planners at that time found the centers of population almost hopelessly overcrowded, and saw with alarm that this condition was spreading with cities' growth. In the older parts it was impossible, without virtual confiscation, to require new buildings to be much lower or smaller than those already there, for the price of the land had adjusted itself to the development, and the change of regulation would have been virtual confiscation. As practical men they therefore left the rules for the centers much as they were, and secured the enactment of adequate restrictions for the newer parts of the towns. This, as we see, created districts, of varying height and area of buildings. If we wish, conservatively and effectively, to prevent the spread of congestion as our cities grow, we must do likewise.

Districting, too, is there used as a part of any public work affecting the distribution of population. The results of our neglect to do this often rob us of some of the advantages of our new undertakings.

New York City has long suffered from overcrowding in Manhattan. This is especially true of the lower east side. In 1905 about one-sixth of the population of the entire city was living there in one-eighty-seventh of its area; 30 blocks had a density of 1,000 to the acre, and a great many more only slightly less.

For the mitigation of this evil increased transit facilities were urged; and when the existing improvements to the transit system of New York were made, this was done partly to that end. The actual result has been to establish new congested areas in the Bronx, and in Williamsburg and Brownsville, in Brooklyn; and the places of those who left

the older congested parts of the city were speedily filled without any improvement of conditions there.

In Frankfort recently a new harbor was laid out, on the outskirts. Here industries were offered inducements to locate, and, separate but near by, a workingmen's district was placed. Here workmen will live cheaply, with adequate light and air. This was possible because this district was an integral part of the plan of the new harbor; and is made permanent by the restrictions imposed on the district.

Germany has made her mistakes; the tenement barracks of undistricted Berlin is one of them. Her districting system is a proved success. It has given her people increased light and air and at the same time increased, both for housing and for industry, the usefulness of her land.

JOHN J. WALSH, Esq., *Boston:*

I have come to receive wisdom and therefore I purpose to ask some questions. Is there any city where condemnation of land to relieve congestion has been judicially determined to be a public purpose? Has the taking of land for housing ever been declared a public purpose, for which the right of eminent domain may be exercised? Has the establishment of a building line in cities been declared an exercise of the police power for which compensation need not be paid?

Now, having asked the questions, I purpose to say what our city has done in reference to some phases of this matter.

In the case of Storer *v.* City of Cambridge, a garage license had been granted in a very well-settled and high-class residential district. The mayor vetoed the grant of the board of aldermen and gave as his reasons æsthetic considerations for the growth of the city. The court was appealed to and sustained the mayor, but not upon æsthetic reasons; it pointed out as an *obiter dictum*, the danger from gasoline and the offensive odor of it; so that we have had a judicial determination that offensive odors are matters within the police power.

Another case, Goldstein *v.* Connor, in 212 Mass., was sought to be used as a precedent for what had been attempted in the later case of Storer where a city ordinance provided that persons who sought to build certain kinds of buildings would first have to procure building permits, leaving to the building commissioner the decision practically as to what kind of building might be put up. That particular law was condemned as unconstitutional.

May I say also that the great question in city planning to me is legal. We all may have the artistic temperament; we all have a strong desire to be of benefit to our neighborhoods, but we must have guidance in the ways by which this may be brought about against the bulwark of our constitution, which has good reason for existing, but no good reason for perpetuating modern conditions which are irreconcilable apparently with good health and good morals. So you city planners must look to us lawyers for the final work in city planning, and we look to the architects for the details, the drawings and so on, and to our landscape gardeners for beautifying; but come to us first, amend your constitutions, waste no time in experimenting with the police power but adopt measures for the amendment of your constitutions to give your legislatures that power which you now demand. Then the strong arm of the State may be appealed to and in one stroke you will be able to weed out congested districts. The Homestead Commission in Massachusetts has procured the passage of a constitutional amendment (subject, of course, to the rule that it must be again passed by the Legislature and then approved by the people) which absolutely gives to the people the right to weed out in one stroke any congested district by the exercise of the right of eminent domain.

A. W. Crawford, Esq., *Philadelphia:*

I do not think you would go to the Supreme Court of the United States in as good circumstances with a State *constitutional* change as you would under *decisions* such as

those in California sustaining the Los Angeles zoning ordinances. The Supreme Court of the United States is broader in its interpretation of what is for public benefit and what is for public use — the one being an exercise of the police power and the other of the power of excess condemnation — than the State courts. I remember a recent decision of the Supreme Court in which the judge who wrote the opinion said that in not one case had the Supreme Court of the United States failed to uphold a taking of land as being for public use where a State Supreme Court had upheld it.

In regard to excess condemnation, three Pennsylvania judges sustained the Pennsylvania Act, but it was upset by the Supreme Court of the State. If we had gotten by our local State courts there would not have been any difficulty, I believe, in the Supreme Court of the United States.

Now with regard to the suggestion of a constitutional change to enable the exercise of the police power; that is a very different thing from a constitutional change to enable the taking of land for public use. If a State declares the taking of land to be for a public use, as New York and Massachusetts have done, there may be an appeal to the Supreme Court of the United States on the ground that the constitutional change violates the 14th Amendment of the Federal Constitution regarding due process of law; that is, the State constitutional change is not final. I would very much rather go to the Supreme Court of the United States with a decision of a lower State court sustaining State legislation, than with a constitutional change to which the Supreme Court may not give so much respect, since it merely means that some men in the Legislature have passed the thing and that a majority of the electors were in favor of it. In the case of the police power — to meet the suggestion of the last gentleman — there is a broad principle that no State may surrender its police power. Case after case has gone to the Supreme Court of the United States, where a State has attempted to surrender its police power in one way or another, whether by consti-

tutional change or by legislation, and the United States Supreme Court has uniformly held that the police power cannot be surrendered. Therefore it is exceedingly important, if possible, not to rely upon a mere State constitutional change in matters which depend for their validity on the police power. It may do good in individual cases. It will depend upon the circumstances; but even a State constitutional change (as distinguished from the decision of a State court) attempting to validate an act as an exercise of the police power will be void unless it really is an exercise of that power.

MR. E. H. BENNETT, *Chicago:*

Speaking as a mere architect, I have very little to say. I wish first of all to express appreciation of the papers and the handling of this subject. It confirms very largely what I consider to be the essential thing in City Planning, and that is a correct program. That program is being written daily; it is being contributed to by every conference that we have. I think that at these conferences we have laid a foundation for one of the most interesting studies that have been made and that is in regard to the general construction of a plan.

In the cities, both of this great country and of the United States, the most important factor it seems to me is that of change, of growth, and it is essential if we are to do anything at all worth while, to forecast the conditions which will occur ten or twenty years from now and to work toward that in laying out our plans.

As Mr. Bettman has so ably brought out, we must lay out a plan to work to; it must be thorough and complete; there must be an analysis of the conditions of today and a forecast of the conditions of twenty years hence. I think what we have heard today will contribute very largely to enabling us to construct a program which will make that more realizable.

EDWARD M. BASSETT, Esq., *New York City:*

It may puzzle some of our Canadian friends when Mr. Veiller and others refer to constitutional difficulties in New York and other States. They may think that our State constitutions contain novel provisions that specifically prevent progress in this field. That is not so. The English Bill of Rights provided that a person should not be deprived of his property except by due process of law, and also that private property should not be taken except for a public use and on making due compensation. These two clauses have been transferred bodily to most of our State constitutions and one of them, i. e., the due process of law clause, to our United States Constitution. Canada considers its unwritten constitution to embrace these clauses of the Bill of Rights, and in a sense they are just as much a part of your constitution as they are of ours. But in our States they are in writing and it is left to our courts to say what acts of the Legislature conform to our constitutions and what acts do not. An act duly passed by our legislatures but declared unconstitutional by our courts is invalid. Consequently, although the fundamental law of Canada contains the same provisions that our friends from the States are now discussing, yet your Legislature does not consider that it is setting aside the Bill of Rights when it passes progressive legislation to suit modern needs. What your Legislature says is final, but in our States what our legislatures say is not final but is subject to review by our courts and is set aside if they think it is unconstitutional. Our courts have quite generally held that excess condemnation is unconstitutional because they hold that it is taking private property for other than a public purpose. All that we can do after our highest courts have so declared is to secure some awkward amendment to the constitution. This is done by popular vote after the approval by two legislatures. English and Canadian legislatures consider that they are recognizing the essential intent of the Bill of Rights by providing for excess condemnation and other

modern municipal needs. There are no words in our constitutions that prevent a broad interpretation of the police powers of the State which are not likewise in your Bill of Rights, but as courts are apt to be more conservative than legislatures, we have been slower to recognize the enlarging police powers. I say enlarging, because modern municipalities have needs that were not felt a century ago.

MR. GEORGE B. FORD, *New York City:*

I am not a lawyer, as are the men who have preceded me, so I cannot discuss this subject really from a legal standpoint.

I notice in everything that has been said so far there has been practically no reference made to height and area restrictions as a means of protecting residential districts. From our experience in New York City, we feel very strongly that height and area regulation can very greatly affect the use and protection of residential districts. When you come right down to it, what is the problem? Is it that we want to exclude the tenement *per se* from the residential district, or is it not rather that we want to exclude certain objectionable classes of buildings from the residential district? A tenement house or an apartment house can be made just as attractive, can have just as much light and air about it as a one- or two-family house.

Therefore, can we not better get at the subject of protecting the residential district by providing for a satisfactory amount of light and air about each house? For example, a house in a residential district occupies, normally, a certain per cent of the land, say 20 to 50 per cent of the lot, except in the center of the city, and is, say, 2½ to 3 stories high. The apartment or tenement on high-priced land, in order that it may be economically possible, often must occupy more than 40 or 50 per cent of the lot and be more than 2½ or 3 stories high. Can we not, therefore, say that in a given district only 2½ or 3 stories, say 36 feet in height, shall be allowed, and that a

building shall be permitted to cover only 35 per cent of the lot. In another district where land is dearer, buildings would be allowed to a greater height and may cover 40 or 50 per cent of the lot. With such restrictions would we not adequately protect the district from the incursion of harmful buildings?

To carry the idea a step further, it is agreed that in country districts houses should be as open as possible to the air. Double houses may well be allowed, i. e., a pair of houses with a party wall between. Thus only can satisfactory light and air throughout the district be preserved. With a sufficient restriction on the height and on the amount of area covered, would not that district be protected satisfactorily as to light and air without having to say, in so many words, that it shall not be used for tenements or apartment houses? It is most difficult before the courts to discriminate against tenements as such. It is not the tenement *per se* that injures a neighborhood. It is rather the excessively tall building or one that fills an undue percentage of its lot.

There is another matter I want to speak about, — the protecting of residential districts by the character of the layout of the street, lot and block units. That is a subject that I believe we have not gone into deeply enough in order to work it out in its full measure of possible development. When we predetermine that the best use of a new district is for residential purposes, can we not so lay out the width of the streets, size of the blocks and lots, as to make it practically suited to a certain type of use and to that only? For example, for a residential use in an open suburb that has not been developed very much, used, perhaps, for workingmen's houses, narrow streets and a shallow lot, say 40 or 50 or 60 feet square would be appropriate. For a higher class of residence a deeper lot would be better. For manufacturing purposes, we would want a very much deeper lot, wider blocks and wider streets.

We can go a long way toward predetermining and con-

trolling the development of any particular section of a city or town by paying proper attention to our street, lot and block plans, a much easier and pleasanter way of doing it than by law and regulation.

MR. JOHN IHLDER, *New York City:*

It seems to me Mr. Ford's suggestion that dwellings be classified simply by height, bulk and percentage of lot occupied would not work out satisfactorily in practice. We must in addition classify them by use, that is, make distinctions between one-family, two-family and multiple-dwellings, or at least between dwellings occupied by three families or more and those occupied by only one or two families. Mr. Ford's belief that the mere physical proportions of the building would classify it sufficiently may be true so far as light and air are concerned, but other elements than light and air enter into the making of a good dwelling.

In many cases it may be that limitations as to size and proportion of lot occupied will tend to keep out the tenement or apartment house. Yet it is an open question whether we are not jumping at this conclusion simply because most of the multiple-dwellings we know overcrowd their lots. What basis does this give us for the assumption that if we decree no dwelling hereafter erected shall occupy more than 50 per cent of its lot or be more than 4 stories high or be nearer than 15 feet to an adjoining building, that thereupon the erection of multiple-dwellings will cease? There are indications in some of our Western cities that the effect would be very small, for these cities have apartment houses surrounded by lawns, houses that fully meet any requirements we are likely to make as to height, size and arrangement.

It is not enough that we provide abundant light and air. We must encourage the building of single-family houses because of their social value in safeguarding family life. Consequently we must be concerned with the use to which

the dwelling is to be put and our law must permit the exclusion of multiple-dwellings from neighborhoods which are to be saved for single-family houses.

MR. A. C. COMEY, *Cambridge, Mass.:*

I have just three points to refer to. One is the question of establishing districts. Æsthetic considerations have been held not to be a public benefit within the scope of the police power, but can we not use the method of condemnation by establishing districts and adjusting damages and benefits for that district?

The second point was referred to by Mr. Ford. He suggested special planning for each type of use. The difficulty with that, it seems to me, is that we have so little knowledge of the needs of the future, and a specialized plan is so difficult to change. Last year in connection with the plans for an imaginary area which we worked out, convertibility was held to be a very important element, and that means that if a district ceases to be valuable for residential purposes, it can be converted into a district for other purposes. If it is highly specialized, that conversion becomes very difficult and wasteful.

The other point was in connection with Mr. Walsh's suggestion. In Massachusetts there has been brought up a constitutional amendment for municipal or state housing. That possibly was not brought out by him, as he was interested in another phase of constitutional amendments. That amendment proposes that the cities and towns or the State should have the power to condemn land for municipal housing, the theory being that housing has not been successful under private ownership, and therefore the State must step in and produce satisfactory housing conditions.

MR. F. W. DOANE, *City Engineer, Halifax, N. S.:*

I want to correct an error in the statement Mr. Veiller made in introducing this subject. In justice to the city which I represent here I cannot allow the statement to go

unchallenged that the Province of Ontario was the pioneer in the movement for legislation for the protection of residential districts. I cannot discuss the legal question, as I am not a lawyer; I do not know whether the law we have down in Nova Scotia is *intra vires* of the Legislature or not, but I do know that we have been operating under it since 1896.

We had a law passed by the Nova Scotia Legislature in 1896 which gives us nearly all the provisions suggested in this discussion today for the protection of residential districts. The law not only restricts the character of the building which shall be erected, it fixes the distance back from the street to which the building shall be erected; it prohibits the erection of any other class of building except residences; it does not allow the property owner to erect a stable without special permission from the City Council; it provides that the design of the building outside and in shall be approved by the City Council, and it restricts the value of the building to be erected. It goes further than any other law I have seen. It provides that the ground in front of the building shall be graded to the satisfaction and approval of the city engineer, so that the property owner cannot grade his ground in any way that will interfere with the adjoining property owner.[1]

MR. JOHN P. FOX, *New York City:*

The protection of a residential district can sometimes be effectively accomplished without the aid of legislation or imposing restrictions, if owners will coöperate in keeping their property in the right hands, with the help of one or two alert real-estate operators and a small amount of capital for making emergency purchases when invasion is threatened by some undesirable party. A remarkable example of such successful protection is afforded by the experience of Beacon Hill, Boston, a district where such satisfactory results have been obtained that two localities

[1] See Appendix.

in other cities have already decided to try similar methods; and other places may be interested to know what has been accomplished and by what methods.

Beacon Hill, Boston, was one of the old, fashionable sections of the city, located close to the business district, and very popular for residence until first the south end and later the Back Bay began to entice people away where they could live in larger and newer houses. The convenience of Beacon Hill was for a time lost sight of by well-to-do people; but its location was appreciated by the other classes, who liked to live within walking distance of their work and to break up a long day by going home at noon; so that the Hill began to be invaded by tenements, which steadily crept in where property values went down low enough to make them financially possible. Business began to invade the Hill in another quarter, and also apartment houses.

Meanwhile some of the people who had moved away from Beacon Hill began to discover that the dusty streets of the Back Bay and Bay State Road were not as pleasant or as convenient for living purposes as the shaded slopes of the Hill, with its old-fashioned colonial houses, within five minutes' walk of stores and offices. And so, within the last few years, has begun the return movement to Beacon Hill, which today is the most desirable neighborhood in Boston. The invasion of business and tenements has not only been checked, but the demand for houses is so great that tenements are being torn down to make way for fine houses; old stables are being removed or altered over, and a considerable area of cheap and almost slum property is being transformed into a quarter of charming houses.

The results in Boston were obtained in this way. The movement back to the Hill was a natural one, but it was stimulated in various ways. The remodeling of old houses was a necessity to make them sell or rent well; but three thousand dollars was usually enough to accomplish the results, or even a few hundred dollars, if the plumbing was

new, provided the exteriors were made attractive architecturally. It often needed only a few skilful touches by an architect to make property go well; but some houses are vacant today because of the neglect of this small but fundamental point.

An unusual spirit of neighborliness so often lacking today in the rapid growth of our cities, makes Beacon Hill a most desirable place for a home. The old houses are being renovated till almost as good as new, and architects are being called upon to beautify the exteriors as well as the interiors. A pilgrimage around the Hill today is as interesting as almost any walk in Europe, and is most suggestive for other cities.

It proved an advantage to have one real estate firm handle all the property on the Hill. This firm took a keen interest in the work, as their livelihood depended upon their success. They have a small working capital, less than $50,000, which enables them to buy promptly when property is suddenly available, especially when an undesirable purchaser is interested. By constant reselling, this capital has been used over and over again.

Young married couples furnished the best material for filling up the old houses. For the sake of low prices, they were willing to live where older people would be too particular, that is, in small or old buildings, in remodeled stables, in side streets and alleys. They would even live among disagreeable surroundings, until sufficient property could be acquired to change the character of a street. Large lots of land were often divided and two houses substituted for one, in order to furnish low-priced homes for these young people.

It was necessary, at first, to keep the Beacon Hill operations rather quiet, in order to prevent too rigid an increase in values, which would have tended to check one of the chief things which made the return to the Hill popular, that is, the low prices.

The example of Beacon Hill is well worth a careful

consideration. It is one of the most striking cases of the appreciation of what seems one of the most fundamental principles of City Planning, namely, that people ought to walk to their work, both rich and poor, as far as possible. The keeping of homes near work means more walking and less riding; the substitution of healthy exercise for unsanitary overcrowding in electric cars and trains; less money spent for car fares and less expense for rapid transit.

MR. VEILLER:

I would like to bring home to the Conference the impression left upon my mind by the discussion.

First, the point brought up by Mr. Ford, viz.: the relation of the scheme of protecting residential districts to city-planning work and the establishing of the city plan. Heretofore it has been discouraging to the City Planner to make a plan which provides for a residential district when he knows that in fifteen or twenty years it will be upset because some individual speculator wants to get an increased profit and does not care whether he destroys the city plan or not, or how much he interferes with the comfort and welfare of everybody in a given residential district. I think you must have some local authority to hold your city plan on the map, so that you can be sure that the plan is going to have some degree of permanency.

I will not attempt to answer Mr. Walsh's questions from the platform, but I may, personally, with him, so far as I am able to.

I want to drive home the point Mr. Bettman made so ably. Of course he would advise (good lawyer as he is he could not have done anything else) that you prepare your case before you go into court. In fact, he believes in making sure that your ancestors are right before you are born. Now that is a proper thing to do. Before you pass your ordinance see where it is going to be attacked and have your case ready to meet it.

We have talked a good deal about the attitude of the

courts and I am reminded of the reply made by assistant corporation counsel of New York, Mr. Hobla, to a question put to him by Mr. Bassett as chairman of our commission. He was asked, What do you think the attitude of the Court of Appeals will be on this proposition? The answer was, I do not know, I do not think I could say what their attitude would be, but I will say this, that they have a great deal more respect for a statute than they had two years ago.

I want also to emphasize what Mr. Bennett said, which is in line with Mr. Ford's statement, viz., that this scheme of residential districts which enables you to have a systematic plan, stabilizes values. I am stealing the phrase from Mr. Bassett. There is nothing more shocking, heretofore, to me, than to see the changes which go on in a city like New York, where we are creating every year new districts and where land values in the old districts have the bottom dropped out of them suddenly by some whim of some real-estate developer who wants to move his location from one street to another.

I am sorry Mr. Purdy is not here to tell you what has happened to values on 23d Street, five years ago our best retail thoroughfare. Why? Simply because some real-estate man has property on 42d Street and he got one of the big department stores to move. When one moves they all move. There is not any district in Europe where they keep jumping around as they do in New York. This scheme will stabilize values.

I am glad that our friend from Nova Scotia has corrected me. I knew I would be corrected. No historian is ever allowed to get away with any such statement as I made. But I knew no member of the Conference would have thought it dignified or polite on my part, if I had told you to "Go to Halifax."

A TOWN PLANNING ACT FOR CANADA

Col. J. H. Burland

Montreal

The preparation of a comprehensive town-planning measure, I need hardly say to you who have had so much experience in the details of Town Planning, is not a duty or task to be lightly assumed or easily or rapidly accomplished. The problem presents so many factors to be considered and indicates so many interests to be reconciled that it must of necessity occupy some considerable time.

The draft bill relating to Town Planning which I have the honor to present for your consideration tonight was drafted by a committee appointed by the Commissioner of Conservation. It is not put forward as the finished product of their labors, but is only the first draft and will be given much further consideration and study before it finally leaves their hands. The Committee will be glad to receive any suggestions which will aid them in perfecting the measure.

To those who are not acquainted with our form of government in this country, I may say that when the Provinces or States of which Canada consists were brought together under the British North American Act in 1867, certain legislative authority was given to the Provinces over matter of their own internal economy. For this reason you will notice that the draft bill does not contain provisions for the appointment of one central federal authority, because the Dominion has no authority in the matter; therefore it has been necessary to provide for central authorities for each Province.

The work of these various boards may be to a certain

extent coördinated by an advisory body established by agreement amongst themselves, but such a body could have no mandatory powers. In brief the bill provides, first, for the establishment of a central authority or board in each Province, under the control of a department of municipal affairs or an already existing Minister of the Crown. This board is given full and complete control of the town-planning schemes of the Province, and as it has not been considered possible to provide for all contingencies or situations that may arise in so great a problem, the powers allotted to the central board have been made wide and elastic. Provision is made for laying before the Provincial Legislature each year all general provisions and all amendments to such provisions by this board.

This central board has power to advise, approve or alter and confirm plans submitted by local boards or other bodies. In case of the refusal or neglect of local authorities to organize for the efficient carrying out of the purposes of this act, it has power to create the necessary local organization. No town-planning scheme shall become effective until authorized by this board, and no money shall be raised or bonds issued for the purpose of carrying out these schemes without the approval and consent of this board. Where a scheme affects two or more municipalities, the board will indicate a responsible authority to carry it out. The board has power also to draft all rules and regulations, whether for its own guidance or the guidance of the local boards, and to settle all questions of procedure with reference to all questions arising under the acts.

Secondly, the bill authorizes the establishment by every city, town or other municipality of a local Housing and Town Planning Board, with a commissioner who must be skilled in town planning, and with power to prepare a town-planning scheme subject to the approval of the central board and to carry it out.

It further provides that the cost of making a town-planning scheme shall be paid out of the current revenue of

the municipality, or out of a special tax which may be levied by the municipality for the purpose. It limits the amount of such tax to one-fiftieth of 1 per cent of the assessed value of property in centers of less than 200,000, and of one-hundredth of 1 per cent for cities of 200,000 and over.

It authorizes the local board to remove buildings and purchase land and execute work itself required for the completion of any authorized town-planning scheme. It provides for compensation where property is injuriously affected by a town-planning scheme, and provides for the collection of a tax upon property benefited by such a scheme.

It provides for arbitration on questions of valuation and damage, and for the purchase, expropriation or acceptance by gift of any property required for the purpose of this act. It also provides for the acquisition of property within 200 feet of the boundary of any improvement authorized, and for the resale of the same after the improvement is completed. It finally provides that no property, tract of land or area shall be subdivided or sold as lots until the plan of such subdivision is approved by the local and central board.

Draft of Town Planning Act

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of
enacts as follows:

1. This Act may be cited as the *Town-planning Act* 191—

2. In this Act and in any rule or regulation made thereunder unless the context otherwise requires:—

(*a*) "Central Board" means the Town-planning Board of the Province of

(*b*) "Commissioner" means a Housing and Town-planning Commissioner appointed by a Municipal Authority.

(*c*) "Comptroller" means the Town-planning Comptroller of the Central Board.

(*d*) "Lands" includes lands, tenements and hereditaments and any interest therein, and also houses, buildings and other works and structures.

(*e*) "Local Board" means the Local Housing and Town-planning Board, and where the land included in any town-planning scheme is in the area of more than one local Board, such Local Board or other authority as may be designated or appointed by the Central Board as the authority to be responsible for carrying out such scheme.

(*f*) "Minister" means the Minister responsible for administering municipal affairs.

(*g*) "Municipal Authority" means the governing body of a municipality.

Central Board.

3. The provisions of this Act shall be administered under the Department of Municipal Affairs by a town-planning board to be appointed by the Lieutenant Governor in Council, consisting of (*a*) a town-planning comptroller, who shall be a permanent paid executive official, skilled in town-planning and chairman of the Board, and responsible to the Minister; (*b*) a person skilled in finance (the Deputy Provincial Treasurer?); (*c*) (the Provincial?) Medical Health Officer; (*d*) (the Provincial?) Architect; (*e*) (the Provincial?) Engineer; (*f*) the Deputy Attorney-General, who shall be members of the Central Board *ex-officio*.

To serve without remuneration.

2. With the exception of the comptroller, the members of the Central Board shall receive no compensation except for actual and reasonable disbursements made when on business connected with this Act.

3. The Central Board shall make an annual report to the Minister, containing the decisions, recommendations and other transactions of the Central Board during the year.

4. The Comptroller shall be the executive officer of the Central Board, and shall perform such duties and shall have such powers as the Central Board, by regulation, approved by the Lieutenant Governor in Council may prescribe; provided that such powers shall not in any case exceed the powers possessed by the Central Board.

Local Board.

5. Every municipal authority is hereby empowered to create a Local Housing and Town-planning Board, consisting of the Mayor (*ex-officio*), the Engineer of the municipality, the Medical Health Officer, and not less

than two ratepayers, to be appointed for two years, and to consist preferably of an Architect and a financier.

(*a*) Such Board shall be a body corporate, and shall have power to acquire, receive and hold, sell, lease and dispose of lands and any interest therein and personal property.

(*b*) The Central Board may, upon its own motion, or upon the petition of at least ten ratepayers in any municipality, appoint a commission for such municipality.

(*c*) A Municipal Authority creating a Local Board shall appoint a Housing and Town-planning Commissioner, who shall be skilled in town-planning, and shall be the executive officer of the Local Board, and who, with the Local Board, shall be responsible for the carrying out of the provisions of this Act, and of the regulations issued thereunder by the Central Board, and of the by-laws of the municipality.

(*d*) The Commissioner shall not be removed from office, and if he is paid a salary or other remuneration, his salary or other remuneration shall not be reduced except in either case with the approval of the Central Board.

Local Board may make a Town-planning scheme.

4. A town-planning scheme may be prepared in accordance with the provisions of this Act with respect to any land already in use which is in course of development, or appears likely to be used for building or other purposes, with the general object of securing suitable provision for traffic, transportation, proper sanitary conditions, amenity, convenience in connection with the laying out of streets and use of the land, and of any neighbouring lands for building or other purposes.

Central Board may authorize a Local Board to make a Town-planning scheme.

2. The Central Board may authorize a Local Board to prepare such a town-planning scheme with reference to any land within or in the neighbourhood of their municipality, if the Local Board satisfy the Central Board that there is a *prima facie* case for making such a scheme, or may authorize a Local Board to adopt, with or without modifications, any such scheme proposed by all or any of the owners of any land with respect to which the Local Board might themselves have been authorized to prepare a scheme.

What land included in scheme.

3. The Central Board may authorize a town-planning scheme for any land already built upon, or any land not likely to be used for building purposes, if it be made to appear to them that such land is so situated that it ought to be improved, and may provide for the demolition or alteration of any building thereon so far as may be necessary for carrying the scheme into effect.

Scheme not to have effect until approved of by Central Board.

4. A town-planning scheme adopted by a Local Board shall not have effect, unless it is approved by order of the Central Board, which Central Board may refuse to approve any scheme except with such modifications and such conditions as the Central Board may impose.

Scheme when approved to be in force.

5. A town-planning scheme, when approved of by the Central Board, shall have full force and effect.

Scheme may be varied or revoked by Central Board.

6. A town-planning scheme may be varied or revoked only by a subsequent scheme adopted by the Local Board and subsequently approved of by the Central Board. Such application for variation or revocation of the original scheme may be made either by the Local Board or by any interested person. Notice of application for such variation or revocation shall be publicly advertised in such manner as may be directed by the Regulations of the Central Authority.

Authority to be responsible for carrying out scheme.

5. The authority to be responsible for the carrying out of a town-planning scheme may be either

(*a*) The Local Board applying for approval of the scheme, or

(*b*) Where land included in a town-planning scheme is in the area of more than one Local Board, such Local Board or other Authority as may be designated or appointed by the Central Board.

Central Board to draft regulations, etc.

2. The Central Board shall make regulations for regulating the procedure to be adopted with respect to applications for authority to prepare or adopt a town-planning scheme, the preparation of the scheme obtaining the approval of the Central Board to a scheme so prepared or adopted, and any inquiries, reports, notices, or other matters required in connection with the preparation or adoption, or the approval of the scheme or preliminary thereto, or in relation to the carrying out of the scheme, or enforcing the observance of the provisions thereof, and for such other purposes as may be found necessary.

Contents of procedure regulations.

3. Provision shall be made therein:

(*a*) For securing co-operation on the part of the Local Board with the owners and other persons interested in the land proposed to be included in the scheme at every stage of the proceedings, by conferences and such other means as may be provided by the regulations. (*b*) For

Notices.

securing that notices of the proposal to prepare or adopt the scheme be given at the earliest stage possible to

those interested therein, and that the same shall be approved of by the Lieutenant Governor in Council. (*c*) For dealing with the other matters mentioned in the schedules of this Act.

To be approved by Legislature.

4. All general provisions and all amendments to such provision made under this Act by the Central Board shall be laid before the Legislature at the next succeeding session thereof, but they shall have full force and effect after their publication in the Official Gazette.

Area and variation of general provisions.

5. Special provisions shall, in addition, be inserted in every town-planning scheme, defining in such manner as may be prescribed by regulations under this Act, the area to which the scheme is to apply, and the Local Board which is to be responsible for enforcing the observance of the scheme, and for the execution of any works which under the scheme, or under the Act, are to be executed by the Local Board, and providing for any matters which may be dealt with by general provisions, and otherwise supplementing, excluding or varying the general provisions, and also dealing with any special circumstances or contingencies for which adequate provision is not made in the general provisions, and for suspending, so far as is necessary for the proper carrying out of the scheme, of any statutes and any by-laws, rules, regulations or other provisions made by a municipal authority, which are in operation in the area included in the scheme, and such special provisions shall have the same effect as if specially enacted by the Legislature.

Funds how raised.

6. Special provisions may also be made in every town-planning scheme prescribing the manner in which the funds necessary for the carrying it into effect are to be procured. If no such provision is made in the scheme, funds may be procured in any way authorized for local improvement or general purposes by any public or private act in force in the city, town, or municipality affected by the scheme; provided always that no assessment upon any city, town, or municipality shall be authorized by any town-planning scheme, without the consent of the municipal authority, or authorities, in control of the area affected being first had and obtained; nor shall any power to borrow money either by the issue of bonds or otherwise be conferred upon a Local Board by any town-planning scheme, except with the approval of the municipal authority, or authorities, in control of the area affected, and also of the Central Board.

(*a*) No by-law for the raising of money for any town-planning scheme shall be passed, and no proceedings shall be taken for procuring the authority of the electors for the raising of any money, or the imposition of any tax or assessment to

provide money for any town-planning scheme until the consent thereto of the Central Board has been obtained, and any debenture or other security issued without the approval of the Central Board, as aforesaid, shall be void.

Preliminary expenses may be paid out of current revenue.

7. Any expenses incurred in preparing any town-planning scheme shall be paid out of current revenue by the municipal authority, or out of the proceeds of any special tax levied for that purpose on the demand of the municipal authority. The amount of such special tax shall not exceed $\frac{1}{10}$ of one per cent of the assessed values of municipalities under 200,000, and $\frac{1}{100}$ of one per cent of the assessed values of municipalities over 200,000. The Board shall expend such money in obtaining the necessary data and in preparing a comprehensive plan of improvement for the whole area of the municipality.

(*a*) Where a municipality has established a Town-planning Board the Board may require the assessment department of such municipality to report upon whether an improvement made by such Board has increased the value of a property more than 10 per cent above the value that the property would have had, had the improvement not been made, and if the said assessment department reports that it has, the said municipality shall impose and collect a double rate of taxation upon the said increase and shall pay one-half of such rate each year that the said assessment department continues to report the increase of value as aforesaid to the Town-planning Board.

(*b*) A local Town-planning Board shall prepare and constantly keep up a comprehensive plan of the whole territory, showing tentative schemes both in its developed and undeveloped portions, for the facilitating of the development of permanent improvements in sanitation, transportation, conservation and beautification of the municipality. It shall carry into effect as opportunity arises such portions of the improvements indicated on the comprehensive plan as its financial resources will permit, and as empowered by this Act. It shall also endeavour to secure such incidental improvements, both public and private, as are in accordance with its comprehensive plan.

Power to enforce scheme.

6. The Local Board may at any time, after giving such notice as may be provided by the town-planning scheme and in accordance with the provisions of this Act;

Remove buildings.

(*a*) Remove, pull down, or alter any building or other work in the area included in the scheme which is such as to interfere or contravene with the scheme, or in the erection or carrying out of which any provision of this scheme has not been complied with, or

Execute work for others. (*b*) Execute any work which it is the duty of any person to execute under the scheme in any case where it appears to the Local Board that delay in the execution of the work would prejudice the efficient operation of the scheme.

2. Any expenses incurred by the Local Board under this section may be recovered from the persons in default in such manner and subject to such conditions as may be provided by the scheme.

Questions arising how determined. 3. If any question arises whether any building or work interferes or contravenes with a town-planning scheme, or whether any provision of a town-planning scheme is not complied with in the erection or carrying out of any such building or work, such question shall be referred to the Central Board, and, unless the parties agree upon some other manner for determining the question, shall be determined by the Central Board, and the decision of the Central Board shall be final, conclusive and binding on all persons.

4. The Local Board shall have power to enter into an agreement with any person or corporation to do any work that the Local Board has itself power to perform, and so far as may be necessary for the purpose of doing such work. Such person or corporation shall have all the powers conferred upon a Local Board by this Act.

Compensation. 7. Any person whose property is injuriously affected by the making of a town-planning scheme shall, if he makes a claim for the purpose within the time (if any) limited by the scheme, such time not being less than three months after the date when notice of the approval of the scheme is published in the manner prescribed by regulations made by the Central Board, be entitled to obtain compensation in respect thereof from the Local Board.

Time for certain compensation. 2. A person shall not be entitled to obtain compensation under this section on account of any building erected on or contract made, or other thing done with respect to land included in a scheme after the time at which the application for authority to prepare the scheme has been made, or after such other time as the Central Board may fix, for the purpose.

Local Board entitled to one-half of increased value. 3. Where, by the making of any town-planning scheme, any property is within twelve months of the completion of the work, or of the section of the work affecting such property, as the case may be, increased in value, if the Local Board makes a claim for the purpose, within the time (if any) — limited by the scheme (not

being less than three months after the date when notice of the approval of the scheme is first published in the manner prescribed by regulations made by the Central Board), the Local Board shall be entitled to recover from any person whose property is so increased in value, one-half of the amount of that increase.

Arbitration.

4. Any question as to whether any property is injuriously affected or increased in value within the meaning of this section, and as to the amount and manner of payment (whether by installments or otherwise), or the sum which is to be paid as compensation under this section, or which the Local Board is entitled to recover from a person whose property is increased in value, shall be determined by a single arbitrator appointed by the Central Board unless the parties agree on some other method of determination.

Recovery of compensation.

5. Any amount due under this section as compensation from a Local Board to a person aggrieved, or to a Local Board from a person whose property is increased in value, may be recovered summarily as a civil debt.

Compensation where scheme is revoked.

6. Where a town-planning scheme is altered or revoked by an order of the Central Board under this Act, any person who has incurred expenditure for the purpose of complying with the scheme shall be entitled to compensation from the Local Board in accordance with this section in so far as any such expenditure is rendered abortive by reason of the alteration or revocation of the scheme.

Exclusion of compensation in certain cases.

8. Where property is alleged to be injuriously affected by reason of any provisions contained in a town-planning scheme, no compensation shall be paid in respect thereof, if or so far as the provisions are such as would have been enforced if they had been contained in by-laws made by the municipal authority.

Spaces about buildings and area for parks.

2. Property shall not be deemed to be injuriously affected by reason of the making of any provisions inserted in a town-planning scheme, which, with a view to securing the amenity of the area included in the scheme, or any part thereof, prescribe the space about buildings, or limit the number of buildings to be erected, or prescribe the height or character of buildings, or the amount of vacant land to be taken for parks or open spaces, which the Central Board, having regard to the nature and situation of the land affected by the provisions, consider reasonable for the purpose.

No double compensation.

3. When a person is entitled to compensation under this Act in respect to any matter or thing, and he would be entitled to compensation in respect to the same matter or thing under any other enactment, he shall not

be entitled to compensation in respect of that matter or thing both under this Act and that other enactment, and shall not be entitled to any greater compensation under this Act than he would be under the other enactment.

Local Authority may acquire property by gift, etc.

9. The Local Board is hereby authorized to acquire property by gift, purchase, or expropriation.

May purchase or expropriate.

10. The Local Board may, for the purpose of a town-planning scheme, purchase any land comprised in such scheme by agreement or compulsorily by paying the average assessed value of the last three assessments preceding the notice of purchase, plus a percentage to be determined by the Central Board in each case.

2. If the Local Board, or any person interested in the price fixed for any land under the provisions of this section, is dissatisfied with the percentage fixed by the Central Board, such Local Board or person shall have the right to apply to any judge of a Superior Court of the Province to appoint an arbitrator to determine such percentage, and the decision of such arbitrator shall be final and conclusive.

3. In the event of compulsory purchase, the arbitrators, or arbitrator, in deciding on values or compensation, shall take into consideration the increased value that will be given to any lands, buildings, works, or other premises by the scheme, or by reason of the enforcement thereof, and shall set off such increased value that will attach to such lands, buildings, works, or other premises against the inconvenience.

Powers of Central Board in case of default of Local Board to make or execute a scheme.

11. If the Central Board is satisfied on any representation that a Local Board

(*a*) has failed to take the requisite steps for having a satisfactory town-planning scheme prepared and approved in a case where a town-planning scheme ought to be made; or

(*b*) has failed to adopt any scheme proposed by owners of any land in a case where a town-planning scheme ought to be adopted; or

(*c*) has unreasonably refused to consent to any modifications or conditions imposed by the Central Board,

the Central Board may, as the case requires, order the Local Board to prepare and submit for the approval of the Central Board such a town-planning scheme, or to adopt the scheme, or to consent to the modification or conditions so inserted. Provided that, where the representation is that a Local Board has failed to adopt a scheme, the Central Board, in lieu of making such an order as aforesaid, may approve the proposed scheme, subject to such modi-

fications and conditions, if any, as the Central Board may deem fit, and thereupon the scheme shall have effect as if it had been adopted by the Local Board and approved by the Central Board.

Minister may enforce observance of scheme.

2. If the Central Board is satisfied on any representation after holding an inquiry, that a Local Board has failed to enforce effectively the observance of a scheme which has been confirmed, or any provisions thereof, or to execute any works, which, under the scheme of this Act, the Local Board is required to execute, the Central Board may order the Local Board to do all things necessary for enforcing the observance of the scheme, or any provisions thereof effectively, or for executing any works which, under the scheme of this Act, the Local Board is required to execute.

Mandamus.

3. Any order under this section may be enforced by *mandamus*.

Local Board may acquire land within 200 feet of boundary lines.

12. The Local Board, with the approval of the Central Board, may acquire, enter upon, take, use and appropriate neighbouring private property, within 200 feet of the boundary lines or proposed boundary lines of any street, public park, playground, or other open space, and shall resell the same as may be directed by the Central Board.

2. The proceeds arising from the resale of any such property so taken shall be used by the Local Board for town-planning purposes as may be approved of by the Central Board.

New Town Sites.

13. No street, road or right-of-way shall be reserved, laid out, granted, or conveyed, and no property, tract of land, or area shall be subdivided or sold as lots until the plan of such subdivision has been approved of by the Local Board, and consequently by the Central Board, and if there is no Local Board, then by the Central Board.

Expenses of administering Act.

14. Any expenses incurred by the Central Board under this Act shall be paid out of any funds appropriated for the purpose by the Legislature of the Province.

SCHEDULE A

Matters to be Dealt With by General Provisions Prescribed by the Central Board

(1) Streets, tramways, roads and other ways, including stopping up, altering, or diverting of existing highways.

(2) Buildings, structures and erections.

(3) Open spaces, private and public.

(4) The preservation of objects of historical interest or natural beauty.

(5) Sewerage, drainage and sewage disposal.

(6) Lighting.

(7) Water supply.

(8) Ancillary or consequential works.

(9) Extinction of variation of private rights-of-way and other easements.

(10) Dealing with or disposal of land acquired by a Local Board.

(11) Power of entry and inspection.

(12) Power of the Local Board to remove, alter or demolish any obstructive work.

(13) Power of the Local Board to make agreements with owners, and of owners to make agreements with one another.

(14) Power of the Local Board to accept any money or property for the furtherance of the objects of any town-planning scheme, and provisions for regulating the administration of any such money or property.

(15) Application with necessary modifications and adaptations of statutory enactments.

(16) Carrying out and supplementing the provisions of this Act for enforcing schemes.

(17) Limitation of time for operation of scheme.

(18) Co-operation of the Local Board with the owners of land included in the scheme, or other person interested by means of conference and other means.

(19) To hold or to order the holding of any public inquiry deemed necessary or advisable by the Board.

SCHEDULE B

1. Procedure anterior to and for the purpose of an application for authority to prepare or adopt a scheme.

(*a*) Submission of plans and estimates.

(*b*) Publication of notices.

2. Procedure during, on, and after the preparation or adoption and before the approval of the scheme.

(*a*) Submission to the Minister of the proposed scheme, with plans and estimates.

(*b*) Notice of submission of proposed scheme to the Minister.

(*c*) Hearing of objections and representations by persons affected, including persons representing architectural or archæological societies, or otherwise interested in the amenity of the proposed scheme.

(*d*) Publication of notice of intention to approve scheme and the lodging of objections thereto.

3. Procedure after the approval of the scheme.

(*a*) Notice to be given of the approval of the scheme.

(*b*) Inquiries and reports as to beginning and the progress and completion of works and other action under the scheme.

4. Duty, at any stage, of the Local Board to publish or deposit for inspection any scheme, or proposed scheme, and the plans relating thereto, and to give information to persons affected with reference to any such scheme or proposed scheme.

5. The details to be specified in plans, including wherever the circumstances so require, the restrictions on the number, location, purpose and dimensions of buildings which may be erected on each acre, and the height and character of such buildings.

Discussion

Mr. Thomas Adams, *London, England:*

I feel somewhat in a difficulty tonight because probably the right attitude to take in opening a discussion is to criticize the matter before you and, in the light of our experience in England, to suggest the defects of this measure, for the benefit of the Committee as far as one can judge them, and to put these before you for discussion.

But I confess that course does not appeal to me, and I want you to accept the view I take that it will be better to put before you the position which we have taken up in regard to town planning in England and give concrete instances of the preparation of town-planning schemes rather than to attempt to criticize the act which has been prepared by this Committee.

In a general congress of this kind our duty should be first to settle general principles and leave details for the consideration of the Committee, which has already done such excellent work, in conference with those who are qualified to consider details from the legal, architectural, engineering and other points of view.

Now there are, no doubt, those who think that a measure of this kind, so drastic in its provisions, may go too far. In the past they have had to be content with general regulations, and they have feared the effect of such regulations on the liberty of the subject, and their ultimate effect in

consequence upon industries and upon the growth of a dominion of this kind. There are those, no doubt, who will fear that a measure of this character which goes so much beyond what has been hitherto in force will upset ordinary conditions and produce new difficulties, even though it produces some good effects as a result of being passed into law.

And there are those also who will say it is all very well for the mother country to have this "grandmotherly" legislation and to try to town-plan its old cities, but they have not the difficulties with which we have to contend. But I think that it is not the right way to approach this question, because, after all, although we in the mother country have not the same difficulties that you have, we have our own difficulties, which are quite as great in degree as those with which you have to contend. The difference in our difficulties is not in degree but in character, and you have to bring in proposals which will, I hope, help to secure the same results as we are trying to secure in England, but with that measure of alteration and that application of common sense in regard to local conditions which will enable you to adapt our town planning to your particular needs.

Now I hope you will pardon me if I try to remove some of what appears to me to be misapprehension regarding what town planning is. For instance, in the discussions at past congresses there seemed to be some doubt as to whether town planning is the same thing as the Garden City, or whether the Garden City was a form of town planning, or what city planning or town planning means. Well, having been associated with all these movements in one way or another, I have it perfectly clear in my mind, and I will endeavor to explain what seems to me to be the right interpretation of these movements.

The Garden City Movement, which was explained last night and illustrated on the screen, is a private enterprise. It is a proposal to found new towns on agricultural land, removed from existing centers, with the object of trans-

ferring industries as well as the homes of the work people to these new centers, and one of the fundamental principles of that movement is that the conversion of the agricultural value into building value shall go to the community that creates it.

That is to say that in England, if an estate is purchased at $200 per acre for the purpose of creating a new city, a station opened, public services provided and a town of 10,000 inhabitants has been set up, so that the land which was purchased at $200 is now worth ten or twenty times as much, it is proposed that after satisfying the reasonable demands of capital, to the extent of 5 per cent on the money which has been invested, the whole of the rest of the profit which accrues from that development shall be returned for the benefit of the community.

That is not the kind of enterprise which could be fathered by a municipal authority or by a Dominion or a Provincial Government, but it is a movement which has been most useful in England as a guide to the legislature and as a stimulus in regard to town planning.

Another essential feature is that the town shall be designed from the outset. That everything in regard to the life of the community thus created, every need which a community requires and which is necessary for the purpose of satisfying all the conditions of communal as well as individual life, shall be provided by the exercise of foresight and judgment from the very beginning.

Secondly, there is the Garden Suburb Movement, of which Hampstead is an example, also to some extent a private enterprise. It is the development, not of an independent Garden City, forming a self-contained unit, but of a suburb on the fringe of an existing town, under similar regulations to which the residential portion of the Garden City is subject. If you had a company formed, such as the Toronto Housing Company, to acquire two or three hundred acres on the verge of Toronto and to lay that out, prepare a plan, provide for the needs of different classes

of people, provide transit to it and so on, that would be a Garden Suburb. And perhaps one of the essential features of it would be that the dividend would also be limited and that the community would benefit from the increased value which accrued from the development.

Now I hope it is quite clear that these two movements, while having a relation to town planning and necessarily able to take advantage of it, by reason of being new developments on existing agricultural areas and not redevelopments of existing built-upon areas, are not in themselves, strictly speaking, town-planning schemes and have no direct relation to what we call town-planning legislation.

The next point is as to the distinction between what is called city planning and town planning, and on that point I think that those who form this Conference, whether from the States or from Canada, have come to recognize that it is of much wider application than it has had in Germany, Italy, Sweden and other European countries.

City planning under German and Swedish laws is the control of the street lines, the laying out of boulevards and open spaces, the control of sky lines in building, the control of elevations of the buildings on the main streets and other matters which are concerned with the monumental side of the town rather than with the home life of the people.

For the purpose of illustration let us adhere to that as the interpretation of city planning, and then we return to the question of what is town planning as interpreted by the English act and as proposed to be interpreted in this act which is now being submitted to your consideration.

Now town planning in brief includes the consideration of every aspect of civic life and civic growth. There is nothing in the development of a city which does not come under the purview of town planning properly understood. And the essence of town planning, as the essence of city life, is the safeguarding of the health of the community and the provision of proper homes for the people. On that basis we have to build up the whole of our theory and

practice on the subject. The first essential in the development of a town is that the people who form the units of the community shall live in healthy conditions and that everything shall go to the proper ordering and the proper control of the public health within that community.

It is an essential part, it is true, of the healthy life of the community that they should have factories to work in, light and air in these factories, places for their children to play in, baths for them to wash in and all the pleasing amenities of a civic community.

It is also true that when a community reaches the stage which Toronto has reached, the stage of wealth and importance and prosperity to which Toronto has now come, you have to look after not only the kitchen, not only the living room, but the front parlor of your city. Your main streets and your boulevards, your playgrounds, your university buildings and your other monumental structures require to be adapted to the dignity and importance of your city. It is true that these things are essential in the life of a great community of this kind, but only because you can afford them as matters of luxury, after you have considered the real essentials of the home life of the people.

In a great hotel it is necessary to have a fine vestibule, a fine reception room, but the real essential thing to make the guests comfortable is that the kitchen shall be clean and properly ordered and that the bedrooms shall be comfortable.

A great community may be likened to a great hotel. Your boulevards and your public places, your parks and your baths, and so on are the vestibules and the reception rooms. Your factories and your workshops are the kitchens and the sculleries, and your homes are the bedrooms where the people sleep and live and where you want to rear not only men and women, but men and women who will be happy and who will be efficient workers.

It is because, I think, we all realize these things that we applauded so freely the remarks of His Highness, the

Duke of Connaught, when he said that this was not only an important matter, but was a matter of extreme urgency in this great Dominion of Canada, as it is also in the States.

You cannot look around and see what is happening in this city of yours, or in any of the great new cities on this continent, without feeling that there is more control needed, that there is something needed to preserve the health of the people who are coming out to live in your cities. It is not only a matter of extreme urgency, but it is a question to which the best brains and intelligence of this community ought to be directed.

It wants skill and foresight and imagination. You as a Dominion, just as the great United States, have displayed in regard to many matters an imagination which is our admiration in the old country, and in regard to this matter we feel that these very qualities which have helped to build up your enterprises and make you a great commercial community ought to be directed to securing healthy conditions for those who are helping to make your wealth.

I thought it would be well to try to impress upon you the wide application, the broad conception which I think you should have of what town planning is. Yesterday we had a description of Toronto harbor. That is an important part of town planning, but it is not a part which ought to be considered alone. It is a part of the future industrial equipment of this city, and it is a part that ought to be considered in relation to every other thing which is necessary for the building up of this city in the future.

In England we have come to the view that while it is important to cure the evils that have been created, to relieve the slums and correct the building lines, to control the height and character of existing buildings — while these are important — we have come to the conclusion that they might wait a little, or at any rate that while we will not delay in the dealing with these matters, the first essential of a wise community is to see that the evils that have been

handed down to us shall not be handed down by us to those who come after.

We have therefore an act of Parliament which enables us to regulate all future development on land which is not already built upon. And with that object we are trying to apply town planning throughout the whole of England according as the authorities are willing to set to work. In addition to that we will not cease to correct the evils which have been created. We have growing communities just as you have. During the ten years previous to 1911, London grew to the extent of nearly 900,000 people. That is a population nearly twice the number now resident in this city. The development of the land which is occupied by the houses in which we live is controlled by by-laws. We have, I think, some of the best regulations in regard to sanitary matters which are known in the world; but in spite of these, amenities are being destroyed, building lines are being formed and difficulties are being created which can only be controlled by proper town-planning schemes and which it is our intention to see shall be controlled in the future.

Now with the object of illustrating these things I want to take up a little of your time with a few lantern slides, to indicate to you some of the things we are doing.[1]

The Romans looked after the public places and monumental buildings and they neglected the homes of the people. When the Macedonian era came, they began to have regard to the health of the people who were living in the towns. In more modern times, I think almost up to the time when the great railways came, we paid regard to amenities and to the planning of our towns. One can almost trace the reaction against town planning and town orderliness to the moment that the railways were laid down in the old country. They upset all calculations, they cut into all town plans and they broke down many of the good schemes which were then in course of development. Many

[1] The remarks which follow were descriptive of lantern slides.

of you who know my own native town of Edinburgh know how well laid out the newer part of that town is, and the whole of that was due to the fact that it was town-planned from the beginning and that the work was placed in the hands of the best-skilled men. When the railways came, that was checked. I could take you to Edinburgh now and point out to you half-finished houses which have stood with the ragged gable ends from the time the railways were laid down. The ideas of the people of those days were to lay out the town and to develop along the lines of the plan, but as soon as the railways came in and interfered, they felt that there was a force at work which they could not control. The public places and the monumental features were matters of very early consideration in the history of London. Had a town-planning act been introduced one hundred years ago, the greater part of London as it now is would have been properly laid out; the main arteries would have been considered; the building lines fixed and other matters been under control. The town-planning act came in 1909, and we have now to consider the development of the small remnants of unbuilt-upon land that still remain in London. Millions have been spent in London on great street improvements and on the removal of slums. The County of London consists of nearly 700 square miles; the city is only 117 square miles. The population numbers about seven millions. There has been an actual doubling of the population every thirty years within what is known as the outer circle. We are now considering the improvement of our arterial and circular roads. We have to deal with an increasing volume of heavy traffic and of rapid motor traffic. One of the most important things that town planning deals with is this question of arterial road communication. The Local Government Board has delegated me to attend conferences to deal with this matter for a time, and an effort is being made to concentrate upon this particular problem.

It is sometimes said that you do not want great wide

streets, and I agree that one can be extravagant in regard to the width of thoroughfares. This is a technical matter that I think town planners should consider in giving advice to those in authority.

With regard to the cost of wide streets, the city engineer of Liverpool recently said that he had been able to convince his Council that the making of a street, for the purpose of running tram cars, 120 feet wide would be cheaper than the making of a street 80 feet wide. That, of course, sounds ridiculous, but the reason is this: On a street 120 feet wide you can provide for your tramways to run on grass; the rails are laid on sleepers set in grass. But if the street is only 80 feet wide, you have to put down granite sets and lay a concrete foundation for the tramway and incur other expenditure, which makes it quite as costly for the 80 feet as for the 120 feet. In other words, the saving in the cost of construction enables you to buy the extra land. That point ought to be considered when you are considering the question of transport facilities. In considering the introduction of an act of Parliament for the various Provinces, I think you are to be congratulated on approaching it from the British point of view.

I want to read to you a cutting from the *Westminster Gazette,* one of the principal of our London papers, a statement with regard to town planning in Germany which, I think, might have saved many discussions at previous Conferences had we had this position put before us clearly on other occasions. A Berlin correspondent writes as follows to the *Gazette:*

"The lack of working-class dwellings, which in many towns is almost a housing famine, is in part the result of the present town-planning system which so delights superficial persons. In parts town planning is being reformed on principles borrowed from England, but the unregenerate town planning still practiced by the more important municipalities drives building-land prices to extravagant heights and militates against the provision of dwellings.

The Minister of Commerce told the writer that land in Berlin cost $15 to $25 a foot as against two dollars and a half in London."

That is a result of the new condemned five-story flat-barracks system with its broad streets. The argument is that by imposing town-planning schemes with very wide streets, you make the price of the land so high that you cannot provide satisfactory dwellings for the people. That is a point that town planners ought to bear in mind.

In a Birmingham town-planning scheme about 2,500 acres are included. The roads are from 80 to 100 feet wide, intersecting the area and have been planned in advance, for the main arteries. The 80-foot streets are for principal highways on which tramways are not to be laid. Then there are 40 and 20-foot streets for residential purposes. In England we usually have 36 to 40-foot streets, the reason being that when you work under general by-laws you are bound to have a general standard instead of provisions for special circumstances. On the proposed 20-foot streets in Birmingham the buildings cannot be erected nearer to each other than 72 feet, so that you give the owners the benefit of the cheapest street and you get for them much greater air space between the houses.

It is frequently a waste of money to pave the whole of a 100-foot street. Such a street should often have parkways for the people to enjoy, as you have in Rochester, one of the most pleasing towns in the United States. One of the things I admire, although I do not see how you get people to maintain them properly, is the way in which you leave the front grounds of your houses entirely open to the public.

In the area of Greater London there are 137 local authorities, and these have agreed to join in conference to try to settle the question of the town planning of Greater London. Two representatives of each authority have been appointed to the conference. The area has been divided into six sections, one conference dealing with each. The

principal government departments are also represented at the conferences. One of the town-planning areas in Greater London is known as the Ruislip area. It comprises 6,000 acres. The scheme will, within two or three weeks, be an act of Parliament. That means that it cannot be altered or revoked without the consent of Parliament, except in those matters specifically mentioned which can be altered by the Local Government Board. The scheme deals with the construction of streets, the widening of existing streets, the adjustment of boundaries, the relaxation of by-laws, the submission of schemes for the development of small areas, the sanctioning of modifications, the diversion and closing of highways, the limitation of the number of houses to the acre, the restrictions in the height and character of buildings and in the amount of cubic space that any one building may have and so on.

You will, no doubt, regard it as a revolutionary scheme. No more than four houses to the acre can be erected on one portion, no more than six on another portion; that is, each house must have an average of one-fourth and one-sixth of an acre in these portions. In the industrial area no more than 12 houses to the acre can be erected. No factories can be erected within the area except in certain spaces adjoining the railway. No shop can be permitted on one part of the area. With regard to the limitation of houses to the acre, perhaps you will say that is an extraordinary proposal and that we are going to confiscate the owner's property. But only one owner objected, and his objection was met. You have to remember that when you place a restriction of this kind upon property, you are giving an added security to owners which they cannot have when they ask for the full liberty with regard to their land. And that restriction is as valuable to them when they have residential land as if you gave them entire liberty to do as they like with it.

When dealing with shops and industries there are, of course, areas where much larger proportions will be de-

voted to these purposes; but the Ruislip scheme is agreed between the owners and the local authority and is primarily residential. In this case the restrictions become an act of Parliament, and no departure can be made from them without the consent of Parliament.

If you want wide main arteries you must have narrow streets in some places, so as to secure economical development and make the provision of ample air space economical. Cheap houses can be provided within areas which are town-planned, with proper regard to economy in the construction and layout of streets. Refinement of architecture and spacious surroundings lead also to refinement in the interior of the home.

The imposing wide streets in Germany cause the crowded and unhealthy conditions in which the people are living at the back of these streets, and this has led to the statement that town planning is disastrous to the proper provision of homes for the people. That is because they interpret town planning in the wrong way in Germany, and that is one of the things we have to avoid.

The land is so valuable in German suburbs that they cannot build houses less than four or five stories high. High buildings cause land values to be high. In framing legislation we have to avoid the extravagant town planning which will make it necessary to build up our suburbs in this manner. The zone system in Cologne is familiar to many of you. I may say that in Germany in that respect they are working along lines similar to those that we are following in England, restricting the height and character of buildings in different areas surrounding the large towns.

It is quite as essential that people should have healthy conditions in which to work as well as healthy houses in which to live. Hence the importance of designing your factory areas and having plenty of open space surrounding the factories and workshops. The city of Edinburgh affords an example of the advantage of town planning.

The new town of Edinburgh was laid out about 1783 by an architect named Craig. There you have all the advantages of imposing architecture and spaciousness without great cost, simply because the design was made before the buildings were erected.

In the somewhat general survey of our English conditions I have given you some idea of the character of our Town Planning Act. You can purchase a copy of the Ruislip scheme when it is through Parliament [1] from the government printers.

There is one other matter, however, with regard to that scheme to which I must refer before closing. Clauses 36 to 56 secure that no building shall be erected nearer to the property line of existing streets than from 15 to 35 feet. That is to say, there must be a setback of from 15 to 35 feet on existing street lines.

Secondly, on proposed streets no building can be erected nearer to the frontage line of the street than 15 feet. In certain cases, such as shops and corner plots, there is a slight relaxation of that provision. These clauses also secure that the houses shall be limited in number to the acre in the way I have indicated to you on the plan — four in one case, six in another, eight in another, twelve in another, per acre. They also provide that there shall be control of the architectural elevations, that no building shall be of more than six stories and that in the case of domestic buildings no building shall be higher than the distance between the front of that building and the opposite side of the street. They also determine that there shall be a minimum amount of cubic space in the rooms, that no living room can be less than 12 feet by 12 and that advertisements which will interfere with the natural beauty of the landscape will be prohibited.

Now the important point is that under the act the Local Government Board has declared that all these things are

[1] The Ruislip-Northwood scheme is now an act of Parliament and can be purchased from Messrs. Wyman & Sons.

reasonable, and this declaration *ipso facto* excludes any claim for compensation. No owner can claim compensation on the ground that he is limited in the number of buildings to the acre, that he is prevented from erecting shops and factories on certain spaces, that he is prevented from putting buildings nearer to the edge of the highway than 15 to 35 feet in the case of existing roads or 15 feet in the case of proposed roads, the board having decided that these provisions are reasonable, for the purpose of the amenity of the area. So far no owner has raised an objection which has not been met.

Now I think I have given you some idea of the very wide powers which you propose to take under your town-planning legislation. I hope I have not in any way caused you to think that you ought to deflect from the path of righteousness which you have chosen to follow. I trust that in this matter you will not be lacking in courage any more than we are in the old country. We are usually regarded as being slow-going and not having the spirit of enterprise that you have here. Do not let it be said that you are behindhand in regard to Town Planning. You are a great commonwealth; you are attracting from our cities and from our hills and our valleys the blood and bone and sinew which we have reared; you are taking away our young and healthy men and women; do not confine your attention to seeing that they are healthy when they enter your ports; give them happy homes, wide breathing spaces; let them keep not only their health of body, but let them develop the souls which God has given them.

THE CHAIRMAN, ALDERMAN S. MORLEY WICKETT, *Toronto:*

I think that applause indicates very clearly that the subject is a fascinating one and has been admirably presented. The discussion so far, I think, suggests to us that town planning leads us closer to the ideal of efficient business life and sound city government. It seems to me almost an ideal way of getting what in America is known

as commission government in one very important part of our municipal affairs.

Before asking Dr. Hodgetts to discuss the plan of the bill in detail, I would like to ask Mr. Adams if he would care to make some few critical remarks, giving his opinion somewhat more specifically as to the Town Planning Act that is before the convention tonight. I am sure we would all appreciate any estimate that Mr. Adams cares to make of the act before us.

MR. ADAMS:

I think that having taken up so much time, in spite of your very kind invitation, I should prefer if you will allow me to deal with it in another way. If I can be of any service to the Conservation Commission in considering the details of that act, I shall be happy to sit down with them and discuss the matter. But to criticize it now in its present form would, I think, be somewhat premature, because most of us here have not considered and studied it in a way which will enable us to judge whether my criticism might be right or wrong. On the whole, I am not in a position to criticize this draft act. So far as it would be applicable to our conditions it is admirable, but I do not know your conditions sufficiently well to be prepared to say that any criticism I could bring would be sound. If you will allow the discussion to continue, I shall be pleased at the close of it, if the time permits, to answer any questions addressed to me. I should like to confer with Colonel Burland and his colleagues in regard to the act and give any service I can in discussing it with them. In putting forward any suggestion of my own in regard to any particular clause, I should like to ascertain from them first how this would affect you in regard to existing legislation. You have different legislation from ours, and the United States have different legislation. It is based on the principle of democracy, and the matter requires to be considered so as to secure the benefits of town planning with-

out interfering with local autonomy. I think we are agreed in England that some central department which can bring to bear expert opinion and impartial judgment on many of these matters and be a Court of Appeal in regard to them is a useful institution. But I do not know how far you can apply that in Canada.

The only criticism I should venture to suggest, and it cannot be called a criticism of the proposed act, is a reference to the unique situation in the suburbs of your towns. You have in the suburbs of cities like Toronto a difference between the agricultural value and the building value of land much greater than the similar difference in England. This is partly due to the fact, perhaps, that you have not sufficient transportation into these outlying suburbs. It may be due to the fact that the imagination of your real-estate men is very strongly developed. That may cause considerable difficulty to you in regard to town planning. How to deal with it is not for me to say. But I would certainly like to say this: that before you settle on the points in regard to this act, the Commission should consider closely the lessons that we have learned in England since the Act of 1909 came into force, and how far these lessons may influence you to amend the draft now before you.

Comparing the proposed act with the other town-planning acts in the various Provinces, it seems to me to have been a little more carefully considered and to be a good attempt to adapt the provisions of the British act to the special conditions of the Dominion.

DR. C. A. HODGETTS, *Ottawa:*

I am sure, speaking as a member of the Committee, that we are all deeply grateful to Mr. Adams for his remarks here tonight, although they were not along the lines of criticism. We have learned a great deal from him, and I trust that before he leaves for England the members of the Committee will be able to meet him personally and discuss many of these matters with him.

I can say that it was the object of the Committee that town planning in Canada should begin along right and proper lines. It was not so much the city beautiful as the city healthy that we wanted for Canada.

Imbued with that motive the Committee started to work, and they have made this draft which you have in your hands tonight. As the Chairman of the Committee has stated, we do not consider it perfect. It is open for your criticism. The Committee fully realize that there are Provincial difficulties in respect to municipal matters, existing laws that will require certain changes in the bill, when it is discussed by the several legislatures, in order to adapt it to the needs of each Province.

In the past our legislatures have dealt with matters relating to the farmer with a somewhat free hand. You can bring up any subject you like relating to the farmer before parliaments and the legislatures and the Federal Government will lend a ready ear. But matters relating to urban municipalities have been somewhat neglected. However, it is quite evident that the legislatures have changed their minds as to the necessity for considering the interests of the town dwellers, and already some of them have passed town-planning acts, which have been referred to.

The one in Ontario is rather a remarkable act for such a large and influential Province, and it does seem strange that the legislature should have deemed it proper only to pass an act on town planning relating to towns which have reached the size of 50,000. They allow the villages and towns in the Province to commit all the faults and to begin all the evil conditions which have been observed in Germany, France, Great Britain and the United States, pile them one on top of the other, and then they say after these towns have reached the population of 50,000 they may turn back and undo all these costly mistakes. It is high time that this Province should get to work and pass a bill worthy of the Province and of all the good such a measure means to the people, and then we would not see the city of Toronto re-

peating the mistakes which will make its outlines a hideous blunder on our map.

In regard to the method of the administration, the bill provides that the Provincial Government shall establish a central organization. You will find that on the first page, Clause 3, where it refers to the formation of the Provincial Board. That Board is composed of a number of Provincial officers who, it is expected, will give their services and their advice to the towns and cities of the Province.

Then, in addition to that, there are the local boards, to consist of the mayor ex officio, the engineer of the municipality, the medical health officer and not less than two ratepayers, to be appointed for two years and to consist preferably of an architect and a financier. In this way it is proposed to remove the important matters in connection with town planning out of the hands of our municipal councils. Speaking freely, as a Canadian, I may say, after twenty-seven odd years of public experience, that I am not impressed with the achievements or the capabilities of " town councils." I quite agree with the Chairman that the time has come when something else must be done, and possibly this will be one of the methods of getting better days for our cities.

I desire to be very brief. The principal points the Committee want to get at are what shall be the basic principles of the Town Planning Act for Canada, then what elasticity should be given and how. The Committee feel that they have got at most of the basic principles and that the elasticity will be found in the regulations contained in the schedules to the act. I think you will be able to meet and overcome the local difficulties by means of regulations that cannot be, and indeed should not be, provided for in the act itself. This is clearly shown by the experience in Great Britain. The Local Government Board there has seen fit within a very short time to alter and amend their regulations. If they had been part of the act itself, this could not have been done without going back to Parliament.

I would like to say to our American friends that our methods of legislation in Canada are somewhat different from what they are in the United States. Our Committee considered the report of the Chicago Conference, which contained a number of acts the main provisions of which, I think, are incorporated in this one general draft bill. We consider one good act better than a number of acts, passed each for a special purpose, which might produce a sort of patchwork, and if one piece was left out it might ruin the whole.

MR. C. H. MITCHELL, *Toronto:*

The study which the Civic Guild has given to this act has been entirely with a view to helping in the construction of some practicable legislation, which we are all trying to obtain. The Civic Guild is an organization of Toronto citizens which has for its object, one might say, the same objects of town planning and civic improvement as the National Conference on City Planning in which we are now assembled. It bears the same relation to the city as the Conference bears to the country, so that we are all trying to obtain the same results.

I may say that in the small study we have been able to give to this proposed legislation, we have found several things on which we want light. I will mention two or three because, perhaps, they will have the effect of bringing out some discussion from some of the outside members, and that, after all, is what we in Toronto and in this Province and in this country would like to have, because we are now in the work of town planning and we are seeking for all the light we can get, particularly from across the sea and from our neighbors to the south.

The first point is how best the work of the local board can be kept clearly defined, and yet so that it will coördinate with the other work of the officials of the municipality. There is a chance for friction to creep in, as it is well known it may in all municipal organizations. To avoid that is one of the prime objects to be obtained.

Another point I think you will find under Clause 3, Paragraph 7 — how the local board may best arrive at the increment in land value due to and arising out of any town-planning scheme which has been put forward. I fancy that question will create more discussion than anything else which will arise in connection with this draft. I have heard it discussed on various occasions in the last few days, and I would particularly like, sir, to hear from any members from the United States who care to give us their views on the possible process by which that increment can be arrived at, and then having once arrived at it, how best the money can be obtained from the people, the owners who are affected — particularly so in the case of owners who are poor people, who cannot supply the necessary amount, which is in the nature of a tax. I would refer particularly to the case of small holders whose land has increased in value four, six, or even ten times within a few years.

These are some of the salient features which Dr. Hodgetts has in mind and which I drew to his attention yesterday.

Mr. W. F. Burditt, *St. John, N. B.:*

I just wish to say that I think New Brunswick, having enacted a town-planning act rather more than two years ago very similar to the one now proposed, would hardly feel inclined to repeal that act for the purpose of adopting this act. I think also that there would be some danger in repealing our act, because we might not get so good an act through the legislature again.

The only essential difference between the proposed act and the New Brunswick act is that in our act, recognizing that there must be somebody to which town-planning schemes can be referred, a body of appeal for final judgment, we name the governor-in-council. That is, the Provincial Government is the final body of appeal, but at the same time the act states that it may be any board which the governor-in-council may appoint for the purpose, and

it was clearly understood, when the act was put through between the promoters of it and the Provincial Government, that the Public Utilities Board would probably be the board which would act in that capacity. Our Public Utilities Board has supervision over all public utilities operating in the Province, such as telephones, gas, street railways and that sort of thing, and it is regarded by the government as probably the most suitable board to deal with town-planning schemes after they have been adopted by the local boards, which would be appointed by the city councils in much the way proposed in this bill. That is to say, the City Council or Municipal Council has the power to appoint a local board or commission which prepares a town-planning scheme. The names of the local board have to be submitted to the Provincial Government for approval, and when the membership of the local board is approved by the government and the local board has been given authority to proceed and prepare a scheme, it can go ahead; and when the scheme is finally approved by the local government or such board as it may appoint, the scheme then has the same force as if it had been a special act of Parliament.

MR. C. J. YORATH, *Saskatoon, Sask.:*

I wish to bring before the meeting a few points of criticism in respect to the proposed act, which I hope will be taken up by the committee in their further deliberations. The first point which I wish to emphasize is the necessity of this act being made compulsory. At present it is provided that the City Council or the local authority *may* appoint a local board.

It has been found in Great Britain that acts that are voluntary prove a failure, and in the Town Planning Act every local authority must draw up a scheme for a town plan when directed to do so by the Local Government Board.

Again, in this draft act, the question of housing has

not been dealt with at all; and as Mr. Adams pointed out, housing is a very essential part of town planning. The Town Planning Act of Great Britain is in two parts; the first part deals with housing, and the second part with town planning proper.

Another point which is not taken up in the act is the question of railways. Although Edinburgh has a town plan, it was to a certain extent spoiled by the railways afterwards coming in. Now those of you who represent Canadian cities know the difficulties we have to contend with in connection with the railways. We are at present drawing up a town-planning scheme in Saskatoon, and we hope that a certain railway will come into the city. Up to the present we have been unable to find any way to decide what part of the city that railway is coming in, so that it may ultimately spoil a considerable part of our town-planning scheme. That is another point I hope the committee will take up when they are considering this bill.

Then with regard to the administration proposed, I will just deal with the local boards. Dr. Hodgetts has stated that the idea of forming a local board is in order to take the authority away from the City Council. Now in my opinion that will create a very large amount of friction which should not occur in connection with town planning. The whole procedure should be as smooth as possible. It is recommended that a local board be appointed consisting of two officials, the mayor and two rate-payers, so that you exclude the local authorities. Now what is the outcome of that? The local authority may not be working in unison with the local board, and as it is provided in the act that any debentures which have to be issued under a town-planning scheme have to be issued by the local authority or City Council, the City Council can kill any town-planning scheme.

Then again it is provided by this act that any debentures which have to be issued have got to be submitted to the rate-payers. We may get expert advice in framing the

town-planning scheme, but whether it is to be ultimately carried out is to be left in the hands of the people, who have no knowledge whatever of the subject.

In closing I should like to ask Mr. Adams one question. Is it not a fact that in Great Britain, if a number of rate-payers request the Local Government Board to enforce a town-planning scheme, the Local Government Board can compel the local authority, if they think it desirable, to initiate a town-planning scheme?

MR. ADAMS:

It is exactly the same in this act. This makes provision that the central board or the local board may prepare and submit a scheme. If the local board does not act, the central board may do so.

MR. YORATH:

But in this case it is "may," not "shall."

MR. ADAMS:

Perhaps the chairman will allow me to make just one brief statement which I should have made before. Under the English act a representation may be made by any four rate-payers, and an inquiry has to be held. I have held two inquiries of that kind, but we have not been able to enforce the act, because the Local Government Board is very much against using the mandamus which the act provides. In one of those cases we persuaded the authority to carry on a scheme. In the other case the authority refused to act, and although it was a very strong case, we took no action. It is much better if some other method can be used.

Let me just draw your attention to Clause 7, Subsection 2. Those who are studying this act should note that particularly I think. "A person shall not be entitled to obtain compensation under this section on account of any building erected on or contract made, or other thing done

with respect to land included in a scheme after the time at which the application for authority to prepare the scheme has been made or after such other time as the central board may fix, for the purpose."

Whenever a local authority in England applies to the Local Government Board, before it starts to think out a single detail of its scheme, no owner can do anything to interfere with the proposed scheme. He cannot buy land to prevent a road being constructed or to make money out of the proposed improvement.

I should also have told you before that in England we have 200 authorities at work in this matter. About 90 have either prepared schemes or have applied for permission to prepare them. The other 110 are in course of considering or preparing schemes. The fact that so few schemes are in progress should not influence you, for this reason: that in respect of those 90 areas no owner can do anything to interfere with the proposed scheme. Do not allow the argument to influence you that it takes a long time to prepare a scheme. The main thing is that, after the authority gets permission to prepare it, no speculation on the public improvement is possible.

MR. L. H. GOTCH, *Calgary, Alta.:*

The Province of Alberta already has an act, but it has not yet been used in any way, and I am sure that the Province will be only too glad to waive that act and take the one for the whole of the Dominion if that act proves a good one.

In looking through the list of the members of the Committee to draft the act, I notice there is no representative west of Ottawa. It is perhaps difficult to carry on work of this kind with anybody at a great distance from the head office, but I would suggest that perhaps it might be possible to have a corresponding member from some point west of Ottawa. Some conditions that apply in the West are very different from those in the East. One can foresee

very considerable trouble in the application of this act in the way of friction between the local board and the City Council. For instance, power is given to the local board to purchase sites and receive gifts; yet to obtain any money they have to go to the city authority, and the city authority has to go to the central board for permission to put through a by-law.

Another point is that in the West we have no authorities on town planning, and the Commissioner has to be an authority. The danger that will occur there is that political influence will be used to put into a position of very great authority a man who is not capable of holding that position. That should be very carefully guarded. Too many positions in the West are filled by men who are not really capable of doing the work. It would be a very great mistake if this act were put into force in the West with such men holding power.

The formation of the Committee itself and the local board is also another point that I think the Committee should consider very carefully. It is provided that the Committee shall consist of the mayor ex officio, the engineer, the medical health officer, possibly an architect and a financier. Frankly, I think the city engineer and the medical health officer of a small town in the West are the last two persons that one would want to have anything to do with town planning.

Hon. George Langley, *Minister of Municipal Affairs, Regina, Sask.:*

In reference to this bill I want to point out that the proposal, which is, after all, the central proposal of the bill, is a reversal entirely of our democratic order of things. We have been until now, at least in the West and I believe also in the East, recognizing one authority and one authority only. In our country at any rate, whatever may be the case among our friends over the line, it is not the court, supreme or otherwise; but the one central and final author-

ity in the Dominion of Canada is the public authority, and no other.

Well, now, what is this proposal? This proposal is that the governments of the different Provinces shall superimpose upon the public a proposal, whether the public agree to it or whether they do not.

I may tell the ladies and gentlemen here assembled that during our session last year we had a town-planning committee in the city of Regina. It consisted of Dr. Wilson, who is the head of our normal school, a very capable man and a good scholar, and two other very capable citizens of the city of Regina, who prepared a town-planning arrangement and brought it to me to be embodied in legislation. There was no suggestion that we should create an authority that should go to our municipalities and say, "This you shall do because we tell you." We have never done anything of that kind at all, but we have given to our municipalities power to do this or to do that or to leave it undone, as they think proper.

I do not believe that it will be possible to take this bill with the proposal to create a central board to any of the provincial governments of the Dominion with a hope of getting them to adopt it.

I stand in a different position from practically every other gentleman who is a member of this Convention. Upon me will rest in the Province of Saskatchewan, and upon men occupying the position I occupy in the other Provinces will rest, the responsibility of putting this proposal on the statute book.

I want to say this to our friends of the Committee who have drawn this bill up, and to all our friends who are backing the Committee: that a proposal of this kind in our own Province could not be entertained for a single moment. Now I want to say that very plainly. It is not that I am against town planning. I am heartily in favor of it. But this proposal for town planning must, in our own Province, be an amendment to the city act and the town act, giving

the electors complete authority to say whether it shall or shall not go into effect. And don't you see what it means? It means that you have not to deal with governments; you have to deal with the people. But our people have a conscience, and if the men and women in this Convention are in earnest, as I hope they are, your business is to appeal to the conscience of our people to embody in their laws your wishes in this matter. And unless you do that there is no hope of your getting it carried into effect.

I am sure our American visitors have had a lesson today in town planning in the ride we had around this beautiful city. Why, all the desires and hopes and wishes of our American visitors have been put into practical operation right here in the city of Toronto. And there is no reason why the public conscience, which has acted in the city of Toronto, should not be appealed to all over Canada. Only it means that you ladies and gentlemen have got to get out among our people and quicken them until the thought that is in your own mind becomes the thought in the minds of the majority of our people, and then all these things that you desire will go into effect without any trouble whatsoever.

DR. P. H. BRYCE, *Department of the Interior, Ottawa:*

I would like to refer in a word to the remarks of Hon. Mr. Langley, whom I heard last autumn speaking so well in his own city with regard to the Province of Saskatchewan and its progress. I have only to say that he has illustrated in many ways the history of the old Province of Ontario and the other Provinces of Canada, as well as that of the United States in the various cities, and he has illustrated the past; but this meeting, I hope, is an illustration of the beginning of the future.

At the risk of personal reference I may say that thirty-odd years ago I started to work here as the secretary of the Board of Health of the Province of Ontario, then just constituted by law, with nothing to guide me; and after

two years' experience I said to the premier of that day, Sir Oliver Mowet, "We must have compulsory boards of health if we are going to progress in the work of public health." He put to our committee the possible objections made by Mr. Langley: Are the people ready for it? Is it necessary? We urged both, and finally he said, "Get your bill drawn up and we will see." The Public Health Act of 1884 followed and we got our local boards of health two years after our Provincial board was first established. It was the beginning and the only possible beginning of constructive work in public health.

I take it in this particular matter, after thirty years' observation of our municipalities, that there is nothing in the draft of the bill now under discussion so absolutely essential to development along any correct lines as that of the establishment of a properly appointed central authority for the Province with adequate powers. It is very proper for Mr. Langley or anyone else to point out the political difficulties in getting right appointments. That is another affair. The conscience, as Mr. Langley says, of our people is awakening, and it will be for that conscience to indicate in the various Provinces who those men will be to whom the work will be given to carry out this magnificent task of town planning and of bringing the conscience of our people to bear on the social questions that we have to deal with.

I see perfectly well the point that Mr. Mitchell has made of the difficulty in the act regarding, How are you going to get the money from the Council? But in too many cases, as Dr. Hodgetts has already said, the councils are extravagant and are not very intelligent as to the administration or expenditure of money. The point to be made clear is that you must establish some method by which you can get, so to speak, past such an irregular and indefinite method of expenditure as has been referred to and give your work to a board more or less technical in character. I see no difficulty in this Province, or in some of the other Provinces, even Mr. Langley's own Province if I am not mistaken.

Already we have here, for instance, the Sanatorium Act, passed fourteen years ago, an act by which a by-law for money for the establishment of a tuberculosis sanatorium is to be submitted to the people. Preliminary to that the site and character of the sanatorium have to be established and approved of by the central board. After approval and the money voted, then the county councils appoint a board of trustees, one retiring each year, for five years, to administer the money which the municipality under the act must supply. Nothing is simpler, and in this act there is nothing more included or provided than is already in existence in other acts in this and other Provinces of the Dominion.

I shall not go on further except to say that Mr. Adams has illustrated how the conscience and intelligence of England has grown in fifty years. I think it is some fifty years since housing acts of different kinds have been passed in England, and now they have got to the point of giving what we have seen in the Act of 1909, the first concrete example in British countries of what the public conscience and intelligence is demanding, and a perfectly clear and defined method of how it is to be carried out.

Hon. P. S. G. Mackenzie, *Provincial Treasurer, Quebec:*

Like my honorable friend, Mr. Langley, I occupy in the Government and Legislature of the Province of Quebec a position of responsibility, and I cannot say offhand what course our Legislature would be disposed to take if the draft bill now under consideration came before us for legislative action.

In a three-minute speech one cannot go into details. I may say, however, that I came here in a very receptive mood, and I have taken a deep interest in the discussions that have taken place and have received a great deal of most useful information.

I may say that I favor the principle of the draft bill now under discussion, but I hesitate as to the application of many of its details, especially in the Province of Quebec.

If the bill were to come before our Legislature in its present form, I do not think it could be adopted, as it contains some provisions which are at variance with the general principles of our municipal institutions. It would probably meet with the opposition of our municipalities, because within the limitations of the general law, and by their charters, they are autonomous. Certain provisions of this bill would undoubtedly conflict with those general principles, especially with regard to the powers of their municipal councils and the rate-payers in financial matters and local taxation. This is a matter, however, of education, and in time, no doubt, great progress will be made.

Indeed we have already made some progress. In 1911 we passed the act known as the Metropolitan Parks Commission Act, which applies to the city of Montreal. Under it rights have been granted to a corporation which has been organized, and briefly stated is an auxiliary of the City Council, to carry out a certain defined policy with respect to the construction and widening of streets and the making of parks and playgrounds.

It was subsequently found that the provisions of the act were inoperative on account of the lack of sufficient financial provisions to enable the Parks Commission to carry out the object of the act. During last session the act was amended authorizing the adoption of certain financial machinery by which it is hoped that the objects of the bill will be accomplished.

Last session also the Legislature of Quebec adopted legislation which this convention will regard as a step in the right direction. This act is entitled "An Act to assist in the construction of dwelling houses in cities, towns and villages." Under this act the formation of companies is authorized for the purpose of acquiring land in municipalities on which to build dwelling houses of reasonable dimensions, supplied with proper improvements and intended to be let at moderate prices, and a municipality is authorized to guarantee, under certain conditions, the pay-

ment of the money required for that purpose. It is too early to say if any progress has been made under the act, but I have no doubt that in time it will be generally adopted.

In conclusion I may say to you that if this question comes up, as come it must—if we are to make progress and if we are to carry out the great humanitarian principles which we have heard discussed so eloquently and with such marked ability in the papers that have been read and the speeches that have been made here—we must progress; and I may tell you that I for one, when the time comes, am prepared to give this measure, whenever it is submitted, the deepest consideration and all the thought I can bestow upon it, in order to aid in bringing about the results which you gentlemen have in view in this splendid and most successful Conference.

DR. C. A. HODGETTS, *Ottawa:*

I must congratulate the last speaker, because we hail with pleasure the words of a statesman that he will carefully consider and if necessary wisely adopt. We have so very few statesmen in Canada, and we have so many politicians, that therefore in many matters we are blocked. But I congratulate the honorable member from Quebec on the way he has spoken in reference to a measure of this kind, and also as to the work his Province has done with respect to housing. It is certainly a matter that every Province must deal with. But unfortunately I must say this legislation is not complete. The Committee have in hand the drafting of a bill referring to housing. The health authorities have not the power of condemnation today; they have not the power to condemn the conversion of the single home into the packing box into which scores of individuals are placed and which is a crime. The Committee have in hand the preparing of a bill to prevent these evils I have pointed out.

This measure, I would like to say, is a measure of public health. There is not a Province of Canada or a city of

the United States but what passes a great deal of public-health legislation and places in the hands of the authorities measures that they do not think of in regard to other matters. And this Town Planning Bill and the House Bill are measures of health. I must remind the honorable member from the West that his Province today has as strong a public-health act as any Province in Canada, and we all rejoice in it; his Province has given to one official powers much greater than are asked for here to be given to any official.

MR. LANGLEY:

Permit me. I am the head of the Public Health Department of Saskatchewan, and we supply all the money for the administration of that department from the Provincial funds. If we had to go to the municipalities for the money, the act would immediately become inoperative.

DR. HODGETTS:

Mr. Chairman, I understood I was closing the discussion. I think that is a parliamentary rule; therefore the speaker is out of order.

Then, sir, in reference to Mr. Mitchell's reference to coördination. It was that very thing of departments and departmental officials that the Committee was endeavoring to solve. They are open for suggestions and hope suggestions will be made as to how best the local body can be formed that will help to coördinate municipal work. We all know that with governments and municipal bodies there is a difficulty in coördinating the work of the officials in the various branches.

As regards the Chairman's remarks, I would point out that this legislation is simply enabling legislation. He indicated that Toronto wished to do many things in the past that if she were to do today would cost the rate-payers untold sums of money. This is simply to enable the city of Toronto, or any other municipality, town or village that

wishes to build wisely and well, to do it under such an act as this if it were passed by the Province of Ontario. Therefore in that respect it is enabling legislation that will enable Toronto to do what it wants to do. If the town of Oakville to the west does not want to do anything like this, then they do not do it.

The remarks of Mr. Leavitt I have dealt with. There will be another bill in regard to the housing question.

In reply to the gentleman from Saskatoon, I would say that in Great Britain today and in other countries that I have been privileged to visit, an act of this kind is not compulsory. Only a few weeks ago the Right Honorable John Burns, before quitting his position of secretary of the Local Government Board, indicated in a speech given in London that it would be a mistake in England at the present time to make that act compulsory. How much greater would it be a mistake to attempt it here. But if you have legislation, then you can go on and educate the people. I claim that wise legislation should come first and then you will get results.

In respect to railways, we all know in Canada that it is a regrettable thing that our railways receive their incorporation from the Federal Government. The Federal Government not only incorporates railway companies, but telegraph and telephone companies. We find a Central Legislature giving away to corporations rights and privileges that are denied to the individual. You cannot plant a large telephone pole in front of your house for any purpose unless you get proper permission. In fact I don't think you could get permission to do it at all. But a corporation can come along and plant telegraph poles where and when and how they like. It is the same way with railways. That is one of our difficulties in this country, that the railways receive legislation from the Central Government, and the Central Government has very little control over matters with regard to municipalities. However, that is possibly a difficulty that in the future can be solved,

as other questions have been solved by proper representation to the federal authority.

I should like to say in conclusion that if any Canadian, or anybody else, would like to send communications to this Committee on the subject of this bill, we shall be very pleased to receive them. Further, I would add that it is the intention, I believe, of the Commission that as soon as the draft is finally made, it will be sent to the attorney generals of each of the Provinces for their consideration and amendments, if any, and then returned to the Commission of Conservation. Nothing will be done hurriedly about it; but it is imperative that something be done speedily. We in Canada must act wisely and well, but not hurriedly.

CANADA AND THE UNITED STATES AS A FIELD FOR THE GARDEN CITY MOVEMENT

G. Trafford Hewitt

President of The Province of Nova Scotia Land Corporation, Limited

Throughout the length and breadth of the civilized world there is a movement in the direction of the improvement of living and housing conditions. In England and the countries of the Continent there have been obvious signs of this advance in the increase in the number of model towns which have been established in the last ten or fifteen years. In Canada and the United States there is evidence today that people generally are keen to dwell under more healthful conditions and enhance the beauty of their homes both internally and externally.

The question of providing suitable homes for workingmen and their families at prices that are not absurdly above the means of the average worker is one, strange as it may seem, which up to a comparatively short time ago had not been seriously considered. Every day the work of providing decent accommodation for the workingman is becoming more difficult, and the only solution to the housing problem is offered by the Garden City and Town Planning Movement, which has reached its highest development in England, and has proved itself to be a means of avoiding congestion and overcrowding in industrial urban centers as well as a method for the establishment of new industrial communities.

The housing problem today is divorced entirely from any element of philanthropy and enters into the realm of business. If the city workman is to become efficient, is to

remain efficient, and if the Canadian and American manufacturer is to attract the best stamp of workman, suitable houses must be provided. When I say houses I do not mean tenements or little tucked-up apartments shared by two or more families. What a workman wants, and what he should be provided with, is a real home; a sanitary, well-built house with all modern improvements, plenty of room for his children, with ample playgrounds in the vicinity of his house and at a price well within his means.

Considered from the financial point of view, Garden Cities may be divided into three types. First, those which form part of a manufacturing enterprise and give no return whatever on the capital invested; secondly, enterprises where the return is limited to a small fixed dividend; and thirdly, enterprises permeated by a genuine desire to improve the conditions of the workers and producers of national wealth, and to do so on sound commercial lines.

I should like to make clear the point that the Garden City is to be distinguished from the Garden Suburb. The real Garden City is a city and a self-sustaining unit. It is not a suburb attached to some other city. The best illustration of the Garden Suburb is to be found at the Hampstead Garden Suburb in London. The best specimen of the Garden City is Letchworth, about 40 miles from London. The highest type of Garden City is not the one with a single dominating industrial establishment, but is one built up about a number of different manufacturing enterprises. The Garden City Movement has filled an intense want in the development of the modern city and in the program of housing reform. It has demonstrated the practicability of building new cities upon absolutely model lines, and the control of the future development of the city in the hands of a centralized body which holds and controls all the land. It has actually effected the removal of considerable numbers of people from the congested areas of the city. In Bournville, for example, 40 per cent of the people are not connected with the Cadbury business at all, but

work in Birmingham. Port Sunlight has, in the same way, drawn most of its population from Liverpool.

The village of Port Sunlight is located about six miles from Liverpool. The land which originally comprised 56 acres now amounts to 444 acres, of which about 231 acres are devoted exclusively to the houses, gardens, parks and public improvements. One of the striking features of the village is the variety of its architecture, and the most diversified styles are to be found side by side. A maximum of ten houses to the acre has been adhered to throughout. The houses are of two different types, one type consisting of a kitchen, scullery and four bedrooms. These houses usually rent by the week at $1.25 and $1.75 respectively, and this rental includes rates, taxes, repairs and maintenance. This village is essentially and actually a part of a great manufacturing business and its system of management. Sir William Lever calls it " prosperity sharing," and the rents which are charged for the houses are only sufficient to pay for depreciation and up-keep. As a separate entity the housing part of Port Sunlight is not self-supporting, for it does not pay any return whatsoever on the tremendous capital investment. The owner of the factory makes no secret of the fact that there is no return whatever on the capital investment, but he has taken this means of sharing prosperity or profits with his employees and he has made sure at the same time that not only the employees themselves, but also their families, share the benefit and share them in ways which are useful and valuable to themselves. With this object in mind, it is easy to understand why only employees of the factory are permitted to rent houses. There would be no point in sharing prosperity with persons who had no part in creating it. Port Sunlight is essentially, therefore, a part of a big manufacturing organization. The feature of the village is the gardens: front gardens, back gardens, flower gardens, vegetable gardens and allotment gardens in which the people take great pride and delight. Some of the more resourceful tenants produce sufficient

garden crops to pay their rent. The allotment gardens are plots of land not immediately joining the gardens which are rented at a nominal sum of $1.25 yearly, and the variety of products and the productiveness of these gardens is really astonishing.

With regard to Bournville, the difference between it and Port Sunlight may be best expressed by the words of Mr. George Cadbury himself, who once said in reference to the village, "I do not want to make money; I want to make men." Both villages have, as their chief support, a single large industry. In Bournville, however, residence is not restricted to employees, but anyone who wishes may go and reside there. The village is owned by the Bournville Village Trust, which is in no way connected with the Cadbury business, and Bournville would go on just the same as at present, even if no factory existed. Mr. Cadbury has created a beautiful village just on the outskirts of Birmingham. His chief aim has been to solve the housing problem, to build a city in which there shall be no crowding of cottages on the land and no crowding of the people in the cottages, in which each house shall have a good-sized garden and no building shall occupy more than one-quarter of the site upon which it is erected. There are always to be wide roads, and at least one-tenth of the land in addition to the roads and gardens is to be reserved for park and recreation grounds. The village came into existence thirteen years ago, and today comprises an area of about 612 acres with over 900 houses erected and occupied by over 5,000 people. The types of architecture are varied, and the plan of the village has been so arranged as to harmonize with the original contour of the land. There are seven houses to the acre, and the sizes and planning of the houses vary considerably. One type has two living rooms, a kitchen and three bedrooms, and the rents are remarkably low, some of the houses being rented for only one dollar per week, but this does not include rates. Some of the houses are owned by the residents who have taken long-time leases

on the ground. None of the land, however, is permanently alienated. One of the most interesting developments in Bournville is the gardens and allotments. Their cultivation has been most successful. The result of a test of 25 gardens shows that the total yield was at the rate of nearly $250 per acre, and that these acres were producing more than six times the value of their former produce, and in addition were housing people at the same time under ideal conditions.

The first Garden City to be formed on any comprehensive plan was the Garden City at Letchworth, situated about 34 miles from London and comprising an area of about 4,000 acres. Founded by a group of people who have limited their possible dividends, located at a considerable distance from London, and where only ten years ago there were a couple of small hamlets, numbering in all about 200 persons, depending for its support neither on pure philanthropy nor on a single business enterprise, Letchworth has demonstrated that it is a real solution of a difficult problem. Its success, economically, also indicates that it will be permanent and the forerunner of many other similar cities. The whole plan was the outcome of a book published in 1898 entitled "Garden Cities of Tomorrow," by Ebenezer Howard. At the time his ideas were thought to be visionary and the scheme as outlined in his book was considered to be a Utopian scheme of city building, but within the fourteen years since his book was first published, this so-called vision has become a definitely realized ideal. Today Letchworth, after ten years, has a population of over 10,000 people. There are already erected over 2,000 houses and shops, four churches, four public baths, a moving-picture theater, political and social clubs, a swimming bath and public and private schools. In addition to this prosperity there are 10 miles of new roads, 20 miles of water main, 15 miles of gas main and 14 miles of sewers. Letchworth aims at relieving city congestion, building a town with a comprehensive and definite plan and with fore-

sight, as opposed to the go-as-you-please growth of the modern city. The most hopeful aspect of the Garden City of Letchworth is the large and increasing number of factories and workshops which have moved out from big cities and located there. The total is now over 67, and many of them are large and have a considerable number of employees. Some of the workers have come from London and other big towns in England in order to take advantage of the low rates, the low price of land and low cost of light and fuel and, above all, the excellent conditions of living. One factory transplanted itself bodily to Letchworth from London and brought with it its entire working force, numbering about 150 people. Not one worker remained in London and, what is better, not one has returned.

The four main features of Letchworth are these:

1. The freehold of the town is held by the Company in the interests of the present and future community.

2. The maximum number of houses to the acre is twelve.

3. Only one-third of the six square miles of the estate is being developed as a town, two-thirds of the area being retained around the town as rural and park land.

4. The shareholders of the Company are entitled to a cumulative dividend, limited to 5 per cent per annum. The surplus which in time will arise from the conversion of rural land into urban land will go to the tenants and lessees in one form or another.

These features hardly need any explanation, but it will be seen that they are necessary to insure the prime objects of the Garden City in order to guarantee that the town will develop along the lines which have been laid down. Two practical principles have been steadily kept in mind and have made the success at Letchworth. They are:

First, the aim in encouraging industries to locate in Letchworth has always been to have such a grouping of the different trades and occupations that both men and women, young and old, will find regular employment. This policy has developed an all-round labor market, which,

although smaller than that of London, presents similar advantages.

Second, there has been a settled and definite policy on the part of the Company to provide recreation and pastimes similar to those that the people enjoy in their homes in the larger cities. The initial success of Letchworth has been its ability to attract manufacturers, and its continued success is due to a well-rounded labor market and its efforts in replacing and adding to the pleasures and enjoyment of city life.

The Hampstead Garden Suburb is due to the genius and energy of Mrs. Barnett of Toynbee Hall, London. Many others have helped in the work, some in big positions and many in small, but it was Mrs. Barnett who had the first inspiration and who enlisted the interests of those whose help was essential to success, and who, by steadfast faith and splendid enthusiasm, carried to a successful issue the first example of town planning in England that observes the economic requirements of the housing problem as well as the hygienic and artistic idea. This scheme is in no sense a purely local matter, benefiting only the people who are housed in this particular suburb. It is of great national importance, because it is founded on sound business principles; and until the housing problem is dealt with on these lines, it will never be solved.

The estate consisted of 320 acres, and an interesting feature in this Hampstead scheme was the handing over to the public of 80 acres for a public park to be added to Hampstead Heath. This was a generous thing to do and all the more useful because business matters were not forgotten. Generosity governed by sound business principles is ten thousand times more helpful than thoughtless charity, no matter how kind hearted. The business side of this transaction was that a strip of land all round the open space was reserved by the Company for building purposes. This strip provided valuable building sites for well-to-do people who are willing to pay a good figure for situ-

ations that can never be spoiled owing to the permanent open space in front of them. The returns from these valuable building sites have proved of great financial assistance to the rest of the scheme.

If time permitted, I should like to refer to Mr. Rowntree's Model Village at Earswick, near York; Sir Richard Paget's beautiful Fallings Park Garden Suburb near Wolverhampton; Coryndon, the Garden Village built by Mr. John Cory, seven miles from Cardiff; and the Harborne Tenants at Birmingham.

I have thus endeavored to describe the best examples of the Garden Cities in England and you will not fail to appreciate the fact that these Garden Cities are full of suggestion for Canada and the United States. Today, cities are springing up in Canada like mushrooms, and doing their utmost to attract manufacturers. The housing of the workmen and the general population of these cities is of vital importance, and I have very carefully considered the question "What field does the Dominion of Canada and the United States offer for this Garden City Movement?" I consider that these two countries offer such enormous scope for this work, and on sound and remunerative business lines, that I have decided to devote my time to it entirely in the future, and I have already started the first organization of its kind in Canada to take up this work. I consider that there is in the world today no better field for the investment of capital, and to me it has the added attraction of knowing that I can earn 6 per cent on my money as well as at the same time improve the conditions under which people are today living in this country.

You may find an enthusiast here and there, who will provide good cheap houses for the people, but unless Garden City methods pay, as they undoubtedly will if properly carried out, it will not really help the solution of the housing problem. When I advocate Garden City methods I do so from its economic advantages, and I must not be understood to mean by this term the 10, 20 or 50 per cent profit

of land speculation and jerry-building. I am referring to a sound, safe, permanent, 6-per-cent investment. The Garden City method is not only capable of preventing waste of health and wealth, but it can, and in fact has, in other countries, enormously increased the national wealth by assisting and encouraging industry and commerce. Largely owing to the rapid increase of immigration, the development of towns in Canada has not been at all on satisfactory lines, and tens of thousands of so-called houses have been thrown together, which must, sooner or later, be condemned for sanitary reasons. As for town planning, there has been none. The speculative owner of property has, with the aid of the provincial or local land surveyor, mapped out streets and lots, so as to make the most for the owners, while no thought or heed has been given to the question of how the work should be done in the best interests of the health and convenience of the community. As a result we find that already Canadian cities and towns, upon acquiring additional areas, have been put to expense in righting mistakes which should never have been permitted, errors in the manner of planning roads and streets, the failure to provide roads and playgrounds, and the non-enforcement of proper restrictions in respect to the height of buildings and the area to be built on. That such conditions as these should grow up in a young country, without the people becoming conscious of them, is not strange, but the time has come when the citizens of these towns can no longer plead ignorance. Fortunately, thus early in our national life we may come to realize these mistakes, and although we cannot right all of them, yet we may, before property in these cities becomes too congested and valuable, make provision that, in the near future at least, some of these errors may be remedied at the minimum cost to the rate-payer.

It is most important that this work should be undertaken at once, since the enormous tide of immigration is constantly bringing a large number of town dwellers from all parts of Europe who gravitate to the cities and towns.

This settlement in cities and towns has already led to overcrowding in the old centers and to the development of shack towns in their vicinity. The increased demand for houses has created the opportunity for the real-estate speculator and his confrere, the jerry-builder, who are a detriment to the community in general and a curse to the mechanic and artisan class. The feeble efforts of city councils are in many cases truly pitiful, and the success of Letchworth and the other Garden Cities in England, from a purely economic standpoint, demonstrates the direction of real success, and some of the towns with industrial ambitions might do well to take a cue from what has been done in England.

On the other hand, as a method of improving the conditions of our great cities and as a means of furthering their good along healthful and decent lines, the Garden City Movement offers more than a mere suggestion. In fact it is the only real solution of one of the greatest problems of modern times. Industrial suburbs developed about the great cities would no doubt be successful, and no municipal effort should be spared in this direction which would produce tangible results. The laying-out of these suburban districts and their development along Garden City lines would solve once and for all the vexed city problems of housing, congestion and rapid transit.

Discussion

Dr. Emile Nadeau, *Quebec:*

As a representative of the Government of the Province of Quebec, I am pleased to tell you that our Provincial Legislature has already passed two bills respecting housing and town planning.

The first one, passed in 1912 and amended last session, provides for the creation of the Metropolitan Parks Commission, for the development of the Island of Montreal.

The second bill passed this year is "An Act to en-

courage the construction of dwellings in cities, towns and villages." Like the Ontario Act, it gives permission to the municipalities to guarantee the bonds of a bona-fide company to the extent of 85 per cent of the investment.

The city of Maisonneuve, near Montreal, has already passed a resolution to guarantee the bonds of one or more companies to the extent of $500,000.

The aldermen of the city of Quebec, for many reasons it is not the time nor the place to discuss, have refused to guarantee the bonds of the Quebec Sanitary Housing Company, although the promoters of the Company were the leading citizens of Quebec and the press and public were much in favor of the undertaking.

In connection with the topic, " Canada as a field for the Garden City Movement," I would like to submit for your consideration a sketch and description of the plan we intended to develop near Quebec:

I am not a town planner and I do not claim that this is a plan. It is only a sketch I wish to submit to you for criticism. It is not copyrighted and it does not belong to me. It belongs to every public-spirited citizen of Canada.

If the Garden City Movement, like the motor-car movement, is here to stay, I think the time has come to give practical shape to such a plan or a similar one, and we have already sufficient legislation to build a model suburb or city somewhere in Canada.

Some of our friends in England, who were in favor of " let well enough alone," laughed at Mr. Howard some ten years ago when he wrote his book " Garden Cities of Tomorrow." However, he found a certain number of idealists who went with him 35 miles from London and decided to build a model Garden City on a plot of 4,500 acres of land. Today, after ten years of hard work, they have there about 2,000 buildings, a population of 10,000 people, living a happy life in the open air, surrounded by trees and flowers, with a general death-rate of 5 per 1,000.

Although I do not know of any Howard in this country, I think there could be found a sufficient number of public-spirited citizens to celebrate the fiftieth anniversary of Confederation, the first of July, 1917, by the official inauguration of a Garden City somewhere in Canada.

Mr. W. R. Davidge, *London, Eng.:*

The point that appeals to me with regard to Garden Suburbs and Garden Cities is that there is no earthly reason why the principle should not be applied in Canada, in America, in the Antipodes or anywhere else. It is simply applied common sense, and the whole object of the thing first of all must needs be appreciated. The whole object of the thing is to provide good comfortable dwellings for everybody; not only comfortable, but pleasant, dwellings at a reasonable figure. The Garden City may be described as a city of homes in which every home is worth living in.

There is no reason, to my mind, why a Garden City should not be adapted from an existing city. It is better if you can start afresh; but if you cannot do that, there are many cases in which an existing city, with all its faults, may be turned gradually into a Garden City pure and simple. It is, of course, a process much more difficult than starting afresh.

One of the cardinal points of the Garden City of Letchworth — which is practically the only city which can really call itself a Garden City in the proper sense at the present moment — is that it is a city complete in itself; complete with its manufactures, with houses for the rich and houses for the poor, self-contained and surrounded by a belt of open country. Toronto is a big city, but there is no reason why Toronto should grow on and on *ad infinitum* until it reaches the next city westward or northward. There is no reason why Toronto should not rather surround itself with open spaces. You will tell me at once that the price would be prohibitive. But look at it from a common-sense point of view. You have at the present moment a certain

amount of land around this city that is ripe for immediate development. Would the city be any worse off as a city if the whole of that land which is now ripe was allocated, we will say, for a belt of agricultural land or public park or whatever you like, and the ripe land was immediately shifted two miles farther out? It is clear that the cost to the community is only the cost of the cheaper land where the new beginning starts.

As far as garden settlements are concerned, whether it is a suburb or a city, you must start far enough out. The Hampstead cottages are within four miles of the center of London, and very many of those houses rent at two dollars a week. Every one of those houses is worth living in. If it can be done within four miles of London at two dollars a week, surely something of the same sort can be done for, say, three or four dollars a week within four miles of the center of Toronto. As to the special figures, that is a point that you with your local knowledge should be able to go into. The great point is that there is no reason at all why your new suburbs should be tacked on to the old blocks. With transportation facilities and growing means of getting to and fro, there is no reason why you should not start some two or three miles farther out and have a new settlement with plenty of health-giving open spaces. You get your land cheaply and at the same time you obtain conditions which make life worth living. You will, I think, agree with me that it is only a question of common sense and actual figures. Liverpool and other cities are improving on their own work. Each year they go one better, and I am quite sure that Toronto and the other cities of Canada and the States generally do not want to go back. You want each year to go steadily forward, making life worth living for everyone.

Mr. Arthur C. Comey, *Cambridge, Mass.:*

I wish to say a few words about what we are trying to do in the Massachusetts Homestead Commission, which is the

only state commission that I know of at present trying to get new housing carried out. We have thought that if we could establish suburbs of the type which you have seen tonight, in Massachusetts, that it would be the best thing to offset the tenement development that is spreading so rapidly through New England and New Jersey.

We last year drew up the terms for organizing such companies as Mr. Hewitt's excellent company in Canada. Of course in the United States we have to rely upon private initiative entirely. We cannot get 85 per cent of the funds backed by the city, as you have in Toronto, and for that reason it is rather slower work. We investigated a number of prospects around Massachusetts, particularly in the vicinity of Boston, and lately we have found a rather unusual opportunity at Billerica, where the Boston & Maine shops have created a great demand for homes, and where the land is still cheap. We have prepared plans and assisted in every way to establish a company out there. We think that is a logical thing for the state commission to do.

Mr. Hewitt has talked of commercial profit. The starting of such ventures as this for workingmen entails a greater risk than subsequent companies, and later on 5 per cent will probably be considered a reasonable commercial profit for such a company. In England they only receive 4½ per cent and are glad to get that. We are endeavoring in Massachusetts to establish 5-per-cent limited dividend companies, which will take up properties and develop them on Garden Suburb lines, including copartnership and all the elements that go into the English schemes. The effect of the limited dividend is to transfer the interest at once from financial profit, which is the primary interest of the speculative dealer in real estate, to the tenant and the resident, and that of course is the important thing to us.

PROVISION FOR FUTURE RAPID TRANSIT: SUBWAY, ELEVATED OR OPEN CUT, AND THEIR INFLUENCE ON THE CITY PLAN

JOHN VIPOND DAVIES

Mem. Inst. C. E., Mem. Am. Soc. C. E., Mem. Can. Soc. C. E.

THE title assigned to me as the subject of this paper introduces such limitations that it is necessary to some extent to break away from a strict adherence to it in order to obtain a little perspective which one is unable to get at close range.

The term "rapid transit" itself, as applied to the great problem of city passenger transportation, has come to be used with the idea that it will provide the solution of all the difficulties of travel incident to the concentration of population in the great cities, while it is essentially only one element in this great problem. The title of this paper, "Provision for Future Rapid Transit," etc., appears to indicate that the city plan under consideration has not yet reached a point where so-called rapid transit is necessary or essential, and that, therefore, the actual need has not yet been reached; consequently, it would appear that to consider such a subject, the logical way must be to obtain the conditions that have been reached in cities which have attained a position requiring such facilities, and to work backward through their development period in order to arrive at what should be considered for the future needs of an embryo city.

The development of all big cities of the world has been dependent on transportation. The early cities were, with hardly any exception, built on waterways where the water

furnished the means of transportation, and even in the development of New York City, the original city plan was laid out with the east-and-west streets running between the North (Hudson) River and the East River at frequent intervals, because the means of transportation was by those rivers, and the increased facilities for intercommunication from side to side were considered of superior importance to the longitudinal movement which it was then believed would always remain upon the waters of the North River and the East River.

When we consider that the first practical locomotive engine (the "Rocket," built by George and Robert Stephenson) made its first trip on October 6, 1829; that the first railway operating as a common carrier (the Liverpool & Manchester Railway) was opened January 1, 1830; and that Fulton's first steamboat was built in 1807 only, we can appreciate how short a period has elapsed since the problem of modern transportation has presented itself for solution.

At the present time, and entirely apart from water transportation, there have developed various classes of the transportation business, and these various classes are inseparable and cannot be considered in any way excepting in their relation one to the other.

It is not the purpose of this paper to consider at all the question of freight transportation, but at the same time, that portion of a railroad's business is inseparable from the operation of what is commonly known as the "steam railroads," irrespective of the fact that in a number of instances, owing to local conditions in and about big cities, steam is being replaced by electric power for operating purposes. Nevertheless, the so-called steam railroad is as different in its characteristics from the so-called rapid transit proposition as the latter is in turn distinct from the surface street railroads. It is the primary function of the steam railroad to connect the populous center with the outside world, thus providing the means for supplies and

subsistence to a concentrated population in a limited area. The steam railroad brings the city into touch with the outer world and brings the outer world to the city; and yet at the same time it can, and must continue to, handle a very large share of what is usually described as rapid transit business, and such rapid transit service is one of the functions of the steam railroad within suburban territory.

The function of the street surface railroad is that of distribution within limited areas of the population, and as the population spreads and the distance and time for distribution become greater, it is obvious that a point is reached in the evolution of a city when some means of quicker and more rapid handling of passenger service becomes necessary, in order to extend the radius and area of the urban district for distribution of the population over a greater territory.

It is well, at the outset, in considering a subject of this kind, to understand clearly what transportation is to a community, and no statement will make this more clear than to say that in countries like Canada and the United States the investment in, and magnitude of, the business of providing and operating transportation facilities are second only to the agricultural industry and far in advance of any other industries whatsoever; and while this applies to countries like Canada and the United States, it applies far more so in countries where agriculture is of less importance than it is on this continent.

Our very existence in cities depends on transportation, and the ability of our cities to expand under modern conditions of life necessitates, as the first requisite, passenger transportation, and, resulting from that expansion, the amount of time consumed in traveling by each individual to and from his place of business constitutes an increasingly large percentage of his total day. There should, therefore, be allowed only a reasonable portion of the day for the actual traveling to and from the place of busi-

ness, and the average speeds of transportation by the different classes of transit facilities, given hereinafter, will be instructive and helpful in arriving at an understanding of the territory which can be properly served by a street surface system before there becomes any necessity for the introduction of rapid transit service. A city in its beginning is merely a village, and as the original owner of the property has to give up a certain land area for the first thoroughfares, and as the town expands more and more land has to be given or acquired for public necessities of streets, the problem which we most have to consider in connection with the rapid transit proposition is not so much the original planning of the village, but the replanning after the city has grown to such proportions that its residents consider that they have reached the period at which they are entitled to more and better transportation service. This is the case when the traveling distance and the time taken in daily travel by an adequate mass of resident and commuting public warrant the heavy expenditures necessary to produce such facilities. It is impossible in the early days to prophesy what the development of a city will be, and Washington, which is one of the few cities of the world that have been laid out in the beginning on a definite plan, has proved that what was anticipated on the original layout to be the commercial center of the city has developed very differently. There is, however, one thing which is certain, and that is that the center of development of the commercial district of a city will be permanently fixed by the transportation facilities which can be provided to the district, as only by such transportation facilities can the commercial population of a city be daily moved inward and outward; and in order, therefore, to retain a commercial district within a city, it is of prime importance to provide it with all the various classes of transportation service which will enable it to attain that position and to retain it with all the changes which may come about in the city's development.

In the early days of a city's growth real estate may be of comparatively little value; and yet to provide broad streets and open spaces in the early days of such a city's development may be a very costly thing in the end, and it may prove very much cheaper and more satisfactory to wait until the growth of a city has proved its necessities and then, at higher prices, purchase such rights of way and property as are needed for replanning purposes, than in the first instance for a community to burden itself with an investment for such purposes, even at a comparatively small price, and carry the interest charges on such an investment throughout the city's growth. This is conspicuously illustrated by the fact that if the $24 which was paid by Governor Minuit to the Indians for the whole of Manhattan Island could have been invested at compound interest, it would have now reached a value of over $400,000,000.

In the evolution of a great city it sometimes occurs that districts in different localities, often at considerable distance apart, by reason of the amalgamation of outlying towns, racial characteristics, business relations or otherwise, necessitate direct intercommunication in no way related to the commercial center, and consequently the provision of through lines of travel connecting such districts becomes desirable, for which no anticipatory city planning will have provided. The general and usual necessity, however, for rapid transit is undoubtedly on radial lines to and from the commercial district and the outlying residential or manufacturing districts, although as population distributes there becomes a necessity for such service across these radial lines, though there is not the same urgent necessity for high speeds of operation.

Because the development of a grown city has proved its original plan to be inadequate, it is not by any means an indication that such planning or development has been haphazard. One of the troubles with us is that we are trying to solve in a decade the whole transportation prob-

lem of cities which have required hundreds of years to build up.

There is no question that for any of the various types of structures to provide rapid transit facilities, broad and straight streets, passing continuously through the commercial district of a city, are not only of great advantage, but they are practically essential and necessary, both for the growing necessities of the surface traffic and for the installation of such structures as are needed for the later rapid transit facilities.

In the more detailed consideration of the types of structure for providing for rapid transit, the presence of the original steam railroads on private rights of way at surface grade must not be lost sight of. They have been the means by which the village has arrived at the rank of a city and attained the dignity of having under consideration the question of rapid transit, and one of the first necessities will be the treatment of, or reconstruction of, that steam railroad. All our large cities are actively engaged in that work. In Europe they had a different problem, for when these steam railroads were built the cities were already old and established and there was present assurance of business accruing. Consequently, in Europe, the railroads were for the most part constructed on masonry viaducts above the grade of streets or on solid embankment. Had such expensive methods been required in the early development of this country, the roads might never have been built and many of our big towns would have remained villages. The proper treatment of these grade elimination problems is very complicated and largely dependent on local topographical conditions, but the treatment of such should have prior rights over any new development solely for rapid transit purposes, because the steam railroad problem is less elastic and much more limited by operating and construction conditions than a purely rapid transit road handling passenger service. In any case, in the reconstruction of such steam railroads in relation to the replanning of a city of the first

rank, they should never be considered for installation of less than four operating tracks so as to enable them to take their place in the evolution of the rapid transit needs. If steam engines operating through service are requisite factors, then the improvement should be on viaducts or in open cut depressed, but if it is of sufficient magnitude to warrant installing electric power, then a covered subway is desirable. At the same time, elevated steel structures have been successfully used; and for the Atlantic Avenue Improvement in Brooklyn (Long Island Railroad), owing to the inability to finance a subway throughout, I devised a composite scheme, taking advantage of the topographical conditions existing, in part subway and in part elevated railroad, which has worked well. In this connection it is worthy of note that it does not necessarily follow that adjacent property will appreciate in value by such elimination of grade crossings. These improvements are of immense value to a community and reduce risks of personal damage and remove necessary, but real, nuisances; but in the case of the Atlantic Avenue Improvement in Brooklyn, or Railroad Avenue, Jersey City (Pennsylvania Railroad), or numerous other such instances, there has been little evidence of any real property improvement.

The provision for new rapid transit railroad construction, whether undertaken by public funds or by private capital, must be considered on practical lines, having regard to the cost and value of the types of construction, concentration of population and general topography of the city and territory to be served.

Generally speaking, it can be assumed that a properly built railroad track, whether on surface right of way, or viaduct or steel structure, or in a subway, is capable of doing only the same passenger business, or, in other words, can serve to operate the same number of persons per hour; and, further, that the operation and maintenance, including depreciation and all other charges, will, if a road is doing a reasonably full business, use up about 45 per cent of its

gross income, the remaining 55 per cent being available to pay the interest charges on the capital invested. It, therefore, can readily be seen how important it is with light traffic to keep the cost of construction and equipment low, considering that, for illustration, the Interborough Rapid Transit Subway in New York, consisting in part of subway and in part of elevated structure, must haul more than 2,000,000 pay passengers per annum per mile of single track to meet fixed charges for structure and equipment; or, further, that a road which would cost, for structure alone without equipment, say $500,000 per mile of double track, would have to haul at a five-cent fare 910,000 pay passengers to pay interest charges on its expenditure for that structure, and, if equipment were included, would have to haul probably 1,400,000 pay passengers per annum.

It will help materially in this consideration to have clearly stated the approximate relative costs of producing different structures, and the following figures are given as average costs for construction of structures and the installation of structural equipment, but without power or rolling stock. They do not include the value of property for rights of way or easement and are given on the basis of constructing a double track railroad in each case, although reduced to the cost per mile of single track:

TYPES OF STRUCTURE FOR DOUBLE RAILWAY TRACKS	COST PER MILE OF SINGLE TRACK
Trolley Railroad in suburban district, either on public roads or private right of way where no paving is required; complete with overhead trolley construction, track bonded; all in operating condition	$25,000.
Trolley Railroad on city streets, including asphalt or granite block pavement for width of tracks and 2 feet outside of tracks; complete with overhead trolley construction, track bonded; all in operating condition	$42,000.
Underground Trolley Railroad in congested streets of a city, including necessary pavements, conduits, etc., and with reasonable allowance for changes of subsurface improvements:	
New York	$126,000.
Washington	48,500.
Elevated Railroad of a type and for the loading per-	

missible to meet requirements of Public Service Commission of New York; complete with stations, contact rail, ties and track; in exterior districts of New York, except Borough of Manhattan, varying with local conditions and details of design from $125,000 to.....	$175,000.
Railroad in open cut similar to Sea Beach Railroad of Brooklyn Rapid Transit Company in Brooklyn, where work is executed with steam shovel and with concrete walls; averaging cost of bridges and stations as part of the cost; complete with contact rail, ties and track; averages.....	$225,000.
Railroad on masonry viaduct filled in with stone ballast, similar to structure now being erected on Queens Boulevard from Queensboro Bridge to Greenpoint, on Long Island, New York; complete with stations, contact rail, ties and track; averages.....	$330,000.
Subway such as the Fourth Avenue Subway in Brooklyn, where work is unaffected by subsurface improvements, where the digging is easy and can be done with steam shovel and under typical ideal conditions; complete with structural and track equipment; averages....	$402,000.
Subway such as the Broadway Subway now being constructed in New York City, where the work is very difficult and involves extreme interference with subsurface improvements of all kinds, the support of street surface, trolley car tracks, underground trolley construction, etc.; complete with structural and track equipment; averages	$1,190,000.
Iron lined Tube Tunnels under waterways or below water level; complete with structural equipment and track; averages	$2,700,000.

In connection with the above table of costs, the difference in the first cost of constructing improvements in a city like Washington, where the soil is advantageous to excavate, where the streets are broad and where there is no difficulty in changing subsurface improvements, is in marked contrast to the cost of executing similar work in a city like New York, where the material to be excavated is most difficult, where the streets are congested and where there are numerous and extensive subsurface improvements to be cared for.

In the matter of speed of operation of improvements under these varying conditions, it is well to bear in mind that for street surface railroads in congested portions of great cities the average speed does not exceed 8 miles per hour. In the less dense districts of a city this speed is increased to 11 or 12 miles per hour, but the average speed

for street trolley railroads in cities will not exceed 9½ miles per hour. Similar electric trolley service in outlying districts on private right of way will average somewhere between 12 and 15 miles per hour. Local service on elevated railroads or subways or in open cut, with stations approximately 1,200 feet apart, will operate at an average speed of about 15 miles per hour. Express service on subway or elevated railroads or in open cut, with express stops spaced about 2 miles apart, will operate at an average speed of about 25 miles per hour, while steam railroads operating rapid transit suburban service, with stops at longer intervals, have an average operating speed of 30 to 35 miles an hour, depending on the district served and the frequency of stops.

The spacing of stations on any type of rapid transit railroad is an important factor as affecting train operation and development of the district. The demand by operating railroad officers, in the interest of the general traveling public, is to increase the length between express stops and so increase the average speed, and, at the same time, to throw increased and more equitable burden on to the local lines. On the other hand, the constant demand by real estate promoters is to ruin the entire high-speed express service by introducing frequent stops on the express lines, thereby, to a large extent, reducing the express service to little better than is provided by the local trains.

For the best operation and to stimulate growth in outlying districts, no high-speed service should have stations at nearer intervals than 2 miles, in the territory between the concentrated commercial center and the outlying suburban sections.

The increase in travel in relation to the population of cities, as illustrated by New York, indicates the growing necessity for constantly increasing facilities by all classes of transportation service. In New York City in 1860, by all means of public conveyance, there were only 43 rides per head of population per annum. In 1870 this figure had

increased to 100; in 1880 to 150; in 1890 to 230; in 1900 to 247; in 1910 to 322; and the most recent figures indicate about 360 rides per head of population per annum during the last year. Somewhat similar figures hold good for Paris, London and Chicago, and to a large extent this increase has been occasioned by the increased transportation facilities provided for the public.

The various types of structures which have been developed for rapid transit service comprise:

1. *Tube Tunnels.* — In cities where the underlying soil is sand, clay, silt or other water-bearing material, below tidal or river levels, or under conditions where construction must be carried on without breaking the surface of streets, tubular tunnels, usually carrying a single track within each tube, are built by use of a shield and the lining constructed of cast iron or steel segmental plates. This type is used also for passing under rivers or waterways where no other type of structure is equally advantageous. The great advantages consist in absolute safety of construction in any kind of soil and in the ability to construct on any alignment without breaking through the surface, so that work may be carried on in crowded districts with entire ignorance on the part of the public that any work is in progress. The type has, in operation, practically all the advantages the subway has, and is a self-contained structure, having excessively thin walls, and consequently can be utilized in narrow thoroughfares and in the worst conditions of soil, and under those conditions can be made strictly watertight.

2. *Subways.* — By subway is meant construction in the open of a railway below surface grade and the structure covered over so as to restore intact a continuous street surface. According to the difficulties of construction, this type may be more or less expensive; but even in the cheapest form, with ideal conditions, the cost of producing such structures is so great as to warrant its being used only in districts where the population has reached a condition of practical saturation, or in commercial districts where the

population has to enter and leave in large numbers. There is no doubt that the subway provides ideal means for conducting transportation under such conditions where the cost can be afforded and where the volume of traffic warrants. It is exempt from all difficulties due to climatic conditions. The equipment is protected and there are no interferences from exterior conditions. The surface of the ground or of the streets remains intact and is free for any development required for street conditions. The extension of subways into deep-level tunnels provides almost endless possibility for the development of rapid transit to the utmost limits of the city's growth, as tunnels may be constructed in tiers, one below the other and irrespective of local surface topography, and, as a matter of fact, can be located without regard to street locations by passing under private property upon easements for transportation purposes only. Before this point is reached it may be necessary to evolve a better understanding as to the value of easements at depths below the surface where the surface property is not in any way interfered with or disturbed, which will enable a railroad to acquire such easements at reasonable cost and expense and thereby enable it to construct lines for high-speed rapid transit service at reasonable expense. In the ultimate growth of the greater cities these lines will become of increasing advantage, as thereby means can be provided for stations in congested districts, and, by dipping down to considerable depth, such a railroad can be extended to the suburban district for many miles without coming near the surface to interfere with any other development, and so produce a truly express rapid transit service.

3. *Open Cut.* — The open cut method of construction of rapid transit facilities necessitates gravity retaining walls and construction at a depth which will permit highways to be abridged over such open cut. This method of construction has been used extensively in many cities and places for the elimination of grade crossings of existing railroads. It

has an advantage over a subway in the matter of first cost due to the fact that usually such work can be constructed with steam shovel, if on private right of way or where the intersecting thoroughfares can be obstructed. There is an advantage in this type of rapid transit facility in that it gives to passengers natural light and fresh air, which is not the case with subways. At the same time, in northern climates, there is the disadvantage of being exposed to and interfered with by extreme conditions of weather. One great advantage of this type of construction over an elevated railroad is the comparative quietness with which the railroad service can be operated, and since the modern electric motor and railroad car have reached a point reasonably near perfection, the elimination of any further noise is a most desirable feature, and is one of the directions in which engineers are now working to improve transportation facilities. The construction (above the retaining walls of an open cut structure) of solid fences reduces the noise effect so that an electric train operating in the open cut is quite unnoticeable. Such a structure, however, must of necessity be located on private property.

4. *Viaducts.* — As above stated, the development of viaducts with masonry and solid fills was the earliest type of construction of steam railroads through European cities. As applied to a street, it is very questionable whether it is a desirable type, as the masonry and piers have of necessity to be very massive; and, unless the street is of extreme width, it forms a serious obstruction to the ordinary surface uses of such a street. A masonry structure, properly designed, may be artistic and improve materially the appearance of a thoroughfare if it is broad enough, but for a private right of way, such a masonry structure or solid embankment, with bridges for the intersecting streets, is advantageous and desirable, particularly on the ground of quietness and low maintenance cost. At the same time, it is open to the ordinary conditions of weather to which a surface line is exposed. Sometimes,

where used, the space below is rented for business purposes.

5. *Elevated Railroads.* — The elevated railroad, constructed of steel, serves a function which it would be difficult to replace. The first cost of such a structure is reasonable and its application to surface conditions is remarkably easy. A solid track floor of reinforced concrete increases somewhat the cost, but reduces the noise, and probably reduces somewhat the cost of maintenance. The principal objection to a steel elevated structure has been due to the fact that many of these structures have been erected on very narrow streets where the structure itself comes within a few feet of the houses on either side. In a broad thoroughfare, and as a structure axial to the street, there is very much less objection to this means of providing transportation. To the traveler this mode of transportation is particularly desirable since he gets the full benefit of light and air while traveling. Notwithstanding the usual objection to these structures, the record in New York and Brooklyn has been that property values have appreciated and have maintained their appreciation to a greater extent than nearby and adjacent properties where no such elevated structures exist, so that it can only fairly be assumed that there is no material property disadvantage in the construction of such an elevated railroad. The great function served by the elevated structure is to enable a railroad to be constructed which does not interfere with the use of the street surface and provides rapid transit operation at the smallest cost, and thereby enables suburban districts and districts of light population to obtain the advantages of rapid transit service which they could not hope to obtain if the alternative was the construction of subways or masonry viaducts.

Let us grant that close access to the congested sections of a city is necessary by the steam railroads doing rapid transit passenger service. Then equally the urban and

suburban rapid transit service must likewise come into that close touch also. These means of transportation through the heart of a grown city must be provided, for the most part, within the limits of streets or public property, and such streets must be both numerous and wide. This may be best appreciated when we think that on completion of the present plans there will be entering the point of New York between Chambers Street and the Battery, a distance of only three-quarters of a mile, no less than 34 single track lines of rapid transit railroads.

When we consider that the ground plan of the central portion of practically all great cities was determined before these modern means of transportation were invented, it is little wonder that scant provision was made for them in the plans. The consequence has been that these facilities, being provided after the city has developed, necessitate construction either over or under existing thoroughfares, or on additional paths on purchased property, requiring the demolition of buildings or other structures along their routes. This has been an expensive and inconvenient method of providing such facilities, not only due to the inconvenience during construction, but to the fact that all business has to adjust itself to these changed conditions; and the provision of each new railroad changes by its operation all the previous conditions of development and in itself, and due to its operation, necessitates reconsideration of the entire subsequent problem.

The former Rapid Transit Railroad Commission of the City of New York endeavored to lay out sufficient rapid transit routes to provide for the city's needs for all time to come, but these lines were scarcely laid on the map before it was necessary to amend and change them, adding additional routes where needed and abandoning other routes which under no circumstances could be woven into an adequate system.

To develop a City Plan for future needs of rapid transit must presuppose the provision of such property, as may

properly be needed for such development, in accordance with one or other of the types referred to above. During the city's period of growth the existing steam railroads will have been amply adequate for the long haul and rapid transit business, and such street surface lines as growing necessities demanded will have been provided and expanded as occasion required for the general local distribution of the business; and the question arises when will the period of the city's growth warrant other development of rapid transit service, either by private or public capital. No city, so far, has attempted such development whose population has not approximated a million; and several of those cities which have tried it have found the attempt unprofitable to the investor, though doubtless advantageous to the owner of real estate. Looked at in whatever way, whether from the point of view of investor or taxpayer, this is essentially a business proposition and should be considered on a business basis. The introduction in the past 15 years of electric power for propulsion has advanced greatly the rapidity of such developments. New York started in 1875, when its population, now included within the territory of the Greater City, was 1,700,000, to build elevated railroads, operated with steam locomotives, by private capital, and for years they were a financial failure. Brooklyn followed suit at a later date, about 1885, and managed to survive for several lean years until the territory served grew and extended and the saturation of population reached a point where the income was adequate to pay returns on the investment. Numbers of cities have worked out plans whereby the street surface railroads can be taken off the surface through the congested sections of the city, with considerable benefit to the public and with largely improved average operating speeds, but not always with profit to the investor. No two cities or propositions are alike, and each must be considered on its own merits.

Looking to the future, a city must, therefore, provide in its early growth such broad main arteries, radiating from

a central district, as will be adequate to care for such transportation facilities as are needed. As the city grows and extends it is the better fitted and able to carry the burden of providing the broader thoroughfares in the various belts for the constantly growing necessities, and always bearing in mind that as the rapid transit facilities need to be increased, the modern motor-truck and automobile traffic on the surface is constantly putting more and greater burdens upon the thoroughfares themselves, which have to be cared for.

The problem we confront is not so much City Planning as "City Re-Planning" to care for changing conditions as well as growth and development. Such replanning should aim, as far as possible, to provide not only for the usual convenient rectangular plan of streets, but also for the broad avenues, radially or diagonally, passing through, in various directions, the commercial district of the city. The replanning should, by such provision of thoroughfares to accommodate rapid transit facilities, aim to increase the area of that commercial district as much as possible, so as to eliminate to the greatest degree, consistent with easy conduct of business relations, the fearful congestion in small areas which exists in London and New York and makes the rapid transit problem so difficult of solution. Easy and quick transit facilities are the only means whereby this desirable result can be attained.

In considering the period of a city's growth when such facilities are to be provided, it must be remembered that the investment must include not only construction but also equipment, which item may amount to from 50 per cent to 100 per cent added to the construction cost, and that the earnings must pay interest on the aggregate expenditure; consequently, there must be sources of concentrated traffic and changes in the passenger load (short haul) in order to yield adequate returns. To obtain this result the more surely, a balanced load obtained by a haul passing through a commercial district to terminal

points at opposite ends of a city is most desirable. This was illustrated best by the extension of the first subway in New York to Brooklyn, by which the traffic was increased vastly, out of all proportion to the increased mileage.

The streets of our great cities today are what they were before motor vehicles and power transportation were invented, and we do not have adequate widths on our main thoroughfares for the present normal surface uses. Nevertheless the public seems to expect that these new conditions can be met and solved at once, although no engineer would be willing to prophesy what the transportation means and methods will have advanced to in the next 20 years. Our problem requires procedure on true engineering lines, with careful working out of plans for each city on its own particular merits and for its individual needs, without political or private real estate interference and influence; bearing in mind that so far as cost will permit, it is desirable to eliminate any obstructions in public streets, but that if such are necessary to meet the case, there is little objection if the thoroughfares are broad and commodious.

UTILITY OF THE MOTOR BUS AND MUNICIPAL PROBLEMS PERTAINING TO ITS OPERATION

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SELF-PROPELLED vehicles for the transportation of passengers have only recently begun to attract attention generally on the American continent. The extensive operation of the motor omnibus in some parts of Europe, particularly in London and other parts of England, has so completely proven its capabilities of efficient service that we have the right to assume it will be given a thorough test, and as a result it may eventually take an important place in the passenger transportation field in this country as well. Any new or additional transit facility is important from the standpoint of city planning. The purpose of this paper is not to treat of all the questions relating to the operation of the motor omnibus. Rather, its aim is to present facts sufficient to show the efficiency of the motor bus and the magnitude of its present use; to suggest its possible fields of utility in this country, and to point out the advantages of the independent vehicle and the problems which may confront municipalities in its employment.

Almost as soon as the motor car came to be recognized as a vehicle capable of endurance, efforts were made on the part of engineers and manufacturers to adapt its use to the carrying of passengers in the streets of London. The streets in a large central area of that city are, with few exceptions, short, narrow and crooked, and not adapted to the operation of a sufficiently comprehensive system of

street railways to meet the demands of surface passenger traffic. The street railways being excluded, this area promised to be the most lucrative field for the operation of the motor bus. Because of this, and the further reason that a new form of transit in the streets to supplant the horse-drawn omnibus then in use was needed, it was not unnatural that the greatest energy should be focused on the attempt to use the self-propelled motor vehicle as a means of relief. If, as a result, a new and efficient passenger-carrying agency has made its appearance, more credit should be given to those who have made the London system possible, than to any other group of individuals.

The date of the first appearance of the horse-drawn omnibus in London is not definitely known, but it is certain that corporations owning and operating such vehicles were in existence as early as 1855, and during the year 1862 more than 42,000,000 passengers were carried by the 600 vehicles of one company alone. The maximum number of horse-drawn vehicles was reached in 1901. In this year 3,736 were licensed. Subsequent to that time the number gradually decreased until a few months ago, when the last horse-drawn omnibus was removed from the streets of London.

The new era began in 1901, when 10 motor buses were licensed by the police. No large increase in numbers took place, however, until 1905, when 241 vehicles were licensed; this number being 208 more than had been authorized in any previous year. From that time down to the present, the numbers increased by leaps and bounds; the largest increases being in more recent years, and amounting in 1912 to about 1,000. There are at present in London more than 3,000 motor-driven buses, which have entirely supplanted the horse-drawn vehicles. These have a seating capacity of 34 passengers each; operate on regular schedules; move with an average speed somewhat in excess of the surface railway cars, and carry with regularity and dispatch, at a rate of fare exceeding by only 20 per cent that of the street railways, an aggregate of over 500,000,000 passen-

gers per annum, a total greater than the number of cash fares collected on all the street surface railways of the Boroughs of Manhattan and The Bronx in the city of New York. This seems miraculous when we consider the short period within which motor-driven vehicles have been developed and adapted to this severe use.

The operating efficiency of the motor bus in London may be well illustrated by the fact that during seven continuous months of the year 1913 about 2,200 motor buses ran an average of 117 miles each per day, or an aggregate of 55,000,000 bus miles, with a loss of scheduled mileage equal to only .12 of one per cent of the total. This probably exceeds the efficiency of many street railway systems. In Paris there are more than 1,000 vehicles of a type unlike those in London, operating under different conditions, but performing nevertheless an efficient passenger service. New motor bus routes are being established daily in European cities. Some are being added to street railway systems and are designed to supplement the railway service by extension into districts where the traffic does not warrant the permanent investment of the large sums necessary for the operation of a railway. Thus transit facilities are furnished to communities which would otherwise be neglected for many years to come.

Conditions in New York

New York is probably the only American city in which the horse-drawn omnibus, regularly operating upon a fixed route, was used to any extent up to the time of the introduction of motor vehicles. However, the lines operated on Fifth Avenue and other thoroughfares by the Fifth Avenue Coach Company, while forming a necessary part of the passenger facilities of the city, were used largely for sightseeing, and for this reason were not looked upon as a transportation feature worthy of as serious consideration as the more efficient street railway. This company, keep-

ing pace with the introduction of the motor bus abroad, has now in operation more than 100 motor vehicles which carry 90,000 passengers each per annum, at a fare double that charged on the street railways. These vehicles are now generally considered to be a desirable means of transit, and they have during the past two years yielded a profit to the operators. Comparison of the operating statistics of this company with those of the street railways operating in the Borough of Manhattan shows that the average daily mileage of each surface railway car is about one-third greater than the average daily mileage of the motor bus, and that the average speed of the motor bus is slightly greater than the average speed of the railway car. The efficiency of the motor omnibus as a passenger vehicle having been proven, companies have been formed for the purpose of extending the service in New York and for the initiation of operation in several other cities. Manufacturers of motor vehicles and motor car bodies have noted the development and are now directing their attention toward the production of vehicles particularly adapted to this service.

At the beginning of the year 1913, the laws applying to stage lines in the city of New York were such that the only existing company within the city had, and would continue to have, a virtual monopoly of the omnibus business unless amendments were effected by the legislature. Obligations, which in many cases would be impossible to fulfill, were required by the law of new companies, while practically no conditions were imposed on the existing corporation. A bill designed to correct this inequality was therefore drafted by the city and introduced in the legislature during the session of 1913. This bill subsequently became a law, though it was bitterly opposed by the railway interests on the ground that motor bus operation would open the door to general competition and diminish the volume of their business. The law now subjects all stage or omnibus companies seeking operating authority to the same procedure

as applicants for franchises of any other character, and leaves entirely with the city the right to impose such terms and conditions as it sees fit. The only law under which such companies may be incorporated dates back to 1854. While this is applicable to stage or omnibus companies, it presents some difficulties which may be overcome by future amendments.

During the time action on this bill was pending, or within a few months after the law took effect, three companies were incorporated to operate stage or omnibus lines in the Borough of Manhattan. Each of these companies and the existing operating company presented to the Board of Estimate and Apportionment applications for franchises to operate routes aggregating in length more than 150 miles. Many of the routes of the several applicants are identical and some parallel, in the same street, with the lines of existing street railways. Questions have therefore arisen: First, as to the advisability of granting motor bus franchises on existing street railway routes, thereby permitting general competition between the motor bus and railway facilities; and second, as to the wisdom of authorizing the operation of more than one motor bus company on the same route, thus opening the way to competition between different motor bus companies themselves. These questions have served to delay final action upon the applications, but a tentative form of franchise is now being prepared, reserving to the city the necessary control of operation. In addition to the three mentioned, one company has been formed and has made application for franchise rights to operate in a suburban district in the Borough of Queens. Other companies are being organized to operate routes in the outlying districts.

Characteristics of the Motor Bus

There are two characteristics of the motor bus which distinguish it from every other public transportation facility.

The first is flexibility; that is, flexibility of vehicle movement and flexibility of route. Because of this feature the vehicle responds quickly to operating requirements and to traffic conditions; e.g., passengers may enter or leave buses at the side of the roadway without risk or danger of crossing dense vehicular traffic; delays to other motor cars do not result from breakdown either of a motor bus or any other vehicle, and daily or less frequent changes of route may be made to comply with traffic conditions. All of these are advantages not to be found in any car confined to rails.

The second distinguishing characteristic is its independence of extraneous equipment, such as expensive and delicate power generating and distributing systems or expensive track equipment. The railway investment must, in a large measure, increase in the same ratio as the length of the track, while the motor bus investment grows only in proportion to the number of vehicles employed or, what is the same thing, in proportion to the daily vehicle mileage. The importance of this feature is shown by the comparison of the capitalization of the street railways in the Boroughs of Manhattan and The Bronx and the municipally owned and operated surface railways in London with the largest omnibus undertaking in that city. However, the ratios given serve no purpose as a basis for comparison between other existing or proposed operations. The number of passengers carried in the year 1912 by the London railway was about the same as the number carried by its omnibus system. In Manhattan and The Bronx the total number of passengers paying cash fares and presenting transfers exceeded by about 20 per cent the number carried by the London omnibus system. The aggregate lengths of route operated were about 148 miles by London railways, about 230 miles by Manhattan and The Bronx railways and more than 300 miles by the London motor buses. Yet at the close of 1912 the London railway investment, less the accumulated sinking funds, was $53,000,000; the Manhattan and The Bronx railways' capital was $190,000,000,

with an appraised property value of $166,000,000; while the amount of capital employed by the omnibus company, as evidenced by its outstanding securities, was only $15,500,000, including an increase during the year of $5,000,000 for the purpose of supplying funds for additional facilities, the benefit of which will accrue in subsequent years. Thus we find that the London railway investment is about 3½ times that of the omnibus. The capitalization of the street railways in Manhattan and The Bronx is more than 12 times and their appraised value is almost 9 times as great as the capital used for London omnibuses. Five per cent profit upon the capital of the railways of Manhattan and The Bronx would equal more than 13 cents for each car mile operated. If in the comparisons just made the route mileage of the motor buses had been either more or less, the capital needed would be the same, so long as the number of vehicles and vehicle miles operated did not change. On the other hand, if the route mileage of the railway were increased, then the capital required would be greater, though the number of cars operated or car miles run remained the same.

Flexibility and independence of movement are features which could not be considered heretofore in planning transit systems, and they suggest advantages of the motor bus over other transportation facilities. They make possible the operation by the same equipment of a diversity of routes, changing during the different periods of the day or during the different days of the week to correspond to the desires of the traveling public, thereby obtaining maximum service of each unit. Thus, in performing the more economical operation, each vehicle gives a more efficient public service. In this respect the motor bus would make an ideal "feeder" to rapid transit railways because of its ability to immediately adjust its operation to conform to new directions of traffic made necessary by new facilities. It may be possible to provide by the motor bus transit facilities in many communities where no relief could be had for

years to come, were it not for such a flexible free-moving vehicle. Whether a community is to have service will not depend so much upon the measure of investment risk as upon whether or not enough traffic can be induced at a sufficient fare to pay operating expenses, plus an acceptable margin of profit. If insufficient profit results, the operator will withdraw the vehicles and look elsewhere for a more profitable field. With the element of investment risk so largely removed, no doubt many will be induced to invest in the business without having sufficient understanding of its meaning, resulting in the usual number of financial failures under such conditions.

Cost of Service

The ultimate test of the motor bus must, of course, be the cost of the service to be rendered. This will include the expense incident to the operation, sinking funds to provide for depreciation and interest or profit on capital invested. So much of what may be said in regard to the possible uses of the motor bus depends upon the cost that it should be here considered. We have reason to believe, judging from what has been accomplished in London, that the operating cost, however high it may now be, will diminish as better vehicles are produced and more is learned of the operating economies. The cost per vehicle or seat mile is not the only item to consider in estimating whether a particular operation will be profitable. The capabilities and variety of possible service of the independent vehicle are such that its present apparently high cost of service may be more than offset by its earning power. Accurate data with respect to the cost of mechanical traction on roads is difficult or impossible to obtain. There are so many varying conditions that in all probability only the most general estimate can be made for given conditions. Without quoting figures, the following general comparisons may be made between the operating expense of the

largest existing motor bus undertakings and that of the street railways:

In London, where the operation is skillfully managed, where the pavements are kept in excellent repair and where the improvement in the type and construction of vehicle has been most rapid, we find that the bare operating cost is relatively low. It is less than 15 cents per bus mile and probably does not exceed by more than 10 to 15 per cent the cost per car mile of the municipally owned surface railways. The excess cost is, however, more than offset by the lower interest charges on motor bus operation, and the total cost per bus mile probably is less than the cost per car mile. The relative seating capacity of vehicles used in this comparison is 34 for the motor bus and 78 for the surface car. This ratio of seating capacity brings the total cost per motor bus seat mile greater than that of the car seat mile. In Paris, where a much heavier vehicle of about the same capacity is operated on pavements less smooth, the cost per mile is considerably greater than in London.

Many conditions abroad bearing on the cost of operation differ from those in America; e.g., the comparatively low cost of labor in England, particularly mechanical labor, of which so much is required in motor omnibus operations. The mere comparison, therefore, of the operating costs of the motor bus undertakings here with the costs abroad would serve no purpose, although some idea may be gained by considering the cost of motor bus operation in the Borough of Manhattan as compared with that of surface railways in the same borough. Within this borough railway operation is more expensive than in other boroughs of the city of New York, principally because it is largely carried on in congested districts and because the maintenance of way and structures of the underground contact system is more expensive than that of the overhead trolley. In comparison with this expensive operation, the bare operating cost of the motor bus per mile, although gradually decreasing, is greater than that of the railway per car mile;

but here as in London the cost per bus mile, when interest on investment is included, becomes more nearly equal the cost per railway car mile.

The depreciation of the motor bus is much more rapid than that of the street railway car and other railway equipment and requires provision for replacement funds at a greater rate. The total amount of depreciation may not exceed that of the railway, although the rate is higher, because the value to which the rate is applied is much less. In London the life of motor bus equipment is estimated to be from five to six years, and in New York depreciation funds are provided sufficient to replace the vehicles after three years' use. Probably the average life of motor buses constructed abroad when efficiently maintained is much longer than five years, but the mechanical improvement in type and construction has been thus far so rapid that the vehicles become obsolete before they are worn out.

The cost of operation, and probably the rate of depreciation as well, will vary greatly with the type of the vehicle and the character of the pavement upon which it operates. The large differences between the costs of the various motor bus operations leave the impression that ultimately more economical results will be attained. At the present time, however, the cost seems to be sufficiently low to insure profitable operation in certain classes of service.

Field of Utility

We have in nearly every city and town street surface railways giving on the whole admirable service. The question which may suggest itself at this point, therefore, is: What in this country is the field of utility for the motor bus in its present state of development?

The limiting conditions seem to be: First, the rate of fare to insure profitable results in the operation of known types of vehicle in this country probably must be slightly

greater than that on the street surface railways, or if the same fare is charged, then the average length of ride must be less; second, operations should be excluded from routes where the motor bus would seriously compete with existing transit facilities and should be allowed only on such routes as will supplement the railway service. Probably there is no other public utility from which the people get more for their money than from the street railway, and a general right to operate motor buses, resulting in interference and competition with the surface railways, would invite disaster to this efficient public service. The railway and the motor bus should each have its sphere of utility, and the development of each should, to conserve the best interests of all, be limited to its own field. The experience of most cities has been that the greater use of transit facilities is stimulated by their enlargement or improvement. Statistics show that the number of rides per capita increases under such conditions at a greater rate than the increases of population. Therefore if the motor bus is used as an additional transit facility it will, without doubt, find a service to perform in carrying the increase of traffic due to the additional facilities which it provides. An unfortunate condition exists in London, where the extent and direction of motor bus development is guided only by the operating companies themselves. Traffic has been diverted from the municipally owned railway to the motor bus, so diminishing the railway revenue that a deficit will occur in the near future unless relief is obtained from some direction. This situation is due largely to the lack of municipal supervision of motor bus routes and to the peculiar traffic conditions already described, which exclude railways from the business center of the city. In Paris there is no competition between street railways and motor buses. Both systems are owned by the same company and each supplements the other. This is without doubt the better method.

One use of the motor bus seems to be shown by the operation in New York, where the fare is 10 cents. The increas-

ing number of passengers carried indicates that at least in metropolitan cities there is a demand for facilities at a relatively high rate of fare. This operation, because of the difference of fare, cannot be said to be in direct competition with the street railways. In the congested Borough of Manhattan, with its elevated and subsurface rapid transit railways, and with almost every available north-and-south thoroughfare occupied by street railways, there are districts of dense population between which no direct transit communication exists. Large areas on the east and west sides of Central Park, so situated that their centers are less than one mile apart, are almost as completely without direct connecting transit facilities as though they were separated by several miles. The railway companies have made no effort to obtain franchise rights to give such service.

There are many suburban communities also without sufficient local transit facilities. Jamaica and vicinity, Long Island, may be used as an illustration. Though it is within the boundary of the city of Greater New York and has, with the immediately adjacent development, a population of more than 60,000, this community is almost entirely without means of public conveyance between the railroad stations, business districts and homes. Real estate development has thus been limited to a district less than a mile in width adjacent to and along each side of the Long Island Railroad. Extensive public improvements have been made on adjacent property, well situated for home development, but practically no building has taken place because of the lack of provision for local transit. The rapid transit facilities of the Long Island Railroad are apparently adequate to serve a much larger population. By this means one may reach the business districts of Manhattan in 18 minutes and of Brooklyn in 21 minutes. A study of the situation shows that there is probably a sufficient diversity of local transit business to warrant motor bus operation during a greater part of the day, securing almost full use of the vehicle equipment. The operation of a reliable

motor bus service upon a number of short routes connecting the residential with the business sections and the railway stations at a modest fare would not only open property well situated for the building of homes, but would greatly add to the convenience of the present inhabitants. An omnibus company is now preparing to operate several of such routes in the belief that it will be a profitable venture.

Other communities elsewhere within the limits of Greater New York await local transit facilities. If the motor bus can be operated at a cost such as to enable it to supply this need, there is an immediate field for its operation. This will grow with the population of the community.

Municipal Problems

The rapid strides made indicate that the use of the motor vehicle for general passenger service is in its infancy, and we are, in the opinion of many, on the eve of a considerable development. Such development should be encouraged by the municipal authorities, but be so guided that the public interests will be best conserved. It will be well for the municipal authorities to have a watchful eye on the problems which must be confronted in its accomplishment. Mention has already been made of possible results of general competition, which may be prevented, and the need of careful selection and regulation of routes, which may be accomplished. This may be done by the enactment of proper laws, expert surveys of each situation and the exercise of good judgment on the part of those having authority.

Other problems are the prevention of accidents and the protection of road pavement. These already exist in many places because of the increasing amount of motor traffic, and without doubt are capable of a satisfactory solution. Figures were recently officially reported by the London Traffic Branch of the Board of Trade from which the fol-

lowing comparison may be made between the number of the fatal and non-fatal accidents caused by motor bus and street railway operation for one year: The motor bus killed five times as many as the railway per million miles run; seven times as many per million passengers carried and eight times as many per mile of route operated. It injured three and one-third times as many as the street railway per million miles run; twice as many per million passengers carried and twice as many per mile of route operated. These comparisons omit one important feature; i.e., the density of traffic within which the operation of each system takes place. If that comparison were made, probably the motor bus would not be put in such an undesirable light, since the density of the vehicular traffic is by far the greatest in the central portion of the city, where a large percentage of the bus operation takes place, and from which the railway is excluded. We need not expect the operation of motor buses in such large numbers in the most congested portions of American cities as in London, because of the efficient railway systems already established, and therefore the problem of protection of lives will not be so difficult. However, the application of lifeguards or fenders and the regulation of traffic to prevent accidents are important enough to direct the attention of the authorities when granting rights for the motor bus operation.

Street pavement is to the motor bus what the steel railway track is to the railway car, but unlike the railway track it is provided at public expense. Its preservation, therefore, is one of the problems which will confront the authorities if large numbers of heavy motor buses are to be operated, particularly in suburban districts, where the pavements are usually less permanent than in city streets with dense vehicular traffic. Probably the chief destructive effect of motor traffic on roads is produced by the churning, sheering or grinding action of the driving wheels on the road surface. This obviously increases with the weight

and speed of the driven vehicle. Weak places also in the foundation are quickly discovered by heavy and fast-moving traffic.

The capacity — hence to some degree the weight — of the motor bus is an extremely important consideration from the standpoint of economy, for the cost of operation per vehicle does not increase at the same rate as the number of persons which it may carry. Therefore, where the volume of traffic is sufficient, a larger vehicle is more desirable. Speed and rapid acceleration up to certain limits are also essential for passenger service. In consequence, reduction of weight per unit capacity or other improvements in design must be depended upon to keep down road repair cost rather than reduction of speed in motor bus operation. Speed, while important, is not so essential to the commercial vehicle, and by proper speed regulations and reasonable load limits some of the road destructive effect of that type of vehicle may be eliminated.

Heavy commercial motor vehicles are making their appearance in increasing numbers on roads of all kinds, without regulation either as regards weight of load or rate of speed except the general speed limits, which apply to all vehicles, designed for the protection of life rather than the preservation of roads. Mechanical traction has attained such dimensions in so short a period that road surfaces in outlying districts, at least, have been subjected to traffic conditions different from those originally intended.

Important regulations have only recently been issued affecting Paris and the surrounding country. These limit the load for the unit tire width, fix the maximum gross weight of commercial vehicles and regulate the speed according to the varying gross weight. Public vehicles, however, are not so limited as to speed as are commercial vehicles. Motor buses operated in London, Paris and New York vary in weight from 219 pounds to 365 pounds for each passenger which the vehicle is capable of carrying. The lightest vehicle is used in London and weighs about 3¾ tons un-

loaded. This is the maximum weight permitted by the police for a public service vehicle. It is possible to obtain American-made single deck buses, 24-passenger seating capacity, that probably do not exceed in weight the maximum per passenger capacity authorized in London. Whether those vehicles will prove successful in the severe trials of motor bus work is yet to be proven.

It may be that after a thorough investigation, rules and regulations may be developed which will so regulate the weight, speed and width of tire of both commercial and public service vehicles that practically no excessive cost of road maintenance will result. Certainly regulations affecting commercial vehicles may be devised which would result in less destructive effect on roads. However, such rules, if applied to motor buses, might be so severe with respect to speed as to destroy their usefulness for passenger service. There is a great need for a careful research into the whole problem of mechanical traction on roads, particularly the effect of vehicle weight and speed upon the cost of road maintenance. If it is shown that the motor bus is particularly destructive to roads, the operators should pay something toward road maintenance.

Coöperation between the municipal authorities and the motor bus operators, and between the different municipalities as well, is much needed for the proper development of this new facility, both in its initiation and during subsequent operation. Following are the apparent essential general features of procedure to be observed in the beginning: First, the enactment of general incorporation laws to provide for the formation of operating companies. These should give to some local governing body the authority to fix routes and to supervise operation. Second, a thorough study of transportation and traffic conditions and of the needs of the community in which the operation is proposed, to aid in the selection of routes upon which transit facilities are required and upon which there will not be undue competition with existing facilities. Third, the collection and

preservation of data pertaining to (*a*) cost of operation, (*b*) rate of depreciation of vehicles, (*c*) effect on different classes of road surfaces and foundations and (*d*) efficiency of different types of vehicles. Fourth, the limitation of the operating rights to a comparatively short period until more is learned of the capabilities of the motor bus and the effect of its operation.

Discussion

Hon. George McAneny, *Vice-Mayor of New York City:*

It would be perhaps presumptuous for me to attempt to discuss in any technical sense the railway system of New York City, but there are a few points that it may be worth while for me to touch upon in the papers Mr. Davies and Mr. McCollum have presented to you. They have sketched the development of rapid transit with the development of a city. They have shown you, I am sure—certainly Mr. Davies in his figures of cost—that the choice of type cannot easily be made at the outset of the planning of a city. The fact that a trolley line which will be quite serviceable for the early development of a town will cost $25,000 per single mile of track, and that when you get to the elevated type the price has risen to five or six hundred thousand dollars per mile of track, and so on to subways in a crowded city that will run above a million or two, indicates plainly enough that we must begin with the one type and gradually replace with the others, as the cities grow from one degree to another in magnitude.

The point that I think lies perhaps closest to your general topic is this: that while desiring railways in cities and absolutely requiring them for city development, we have permitted the railway president and his board of directors to take the place of the town or city planning commission. Frequently, therefore, we have cities that have been built by railroad companies for railroading purposes; and the natural desire of the promoter, or of the man who profits from successful railroading, is to keep his short hauls, to

breed congestion if he can, in order that the harvest of nickels may be richer between the congested points.

It seems to me that the city that accepts its transit plan as a part of its general scheme of city planning must decide for itself where lines shall be laid and lay them out according to its own logical development, and not merely for the purpose of earning money upon a commercial basis. We have had such a case in New York City upon rather a large scale.

We have added in the past two years rapid-transit railways—that is, subway and elevated—that with their equipment will cost $325,000,000. Added to the plant we already have, the total investment in these two types of railroad within our city will rise to $550,000,000. And the investment now to be made is to be made all at one time; all of these railroads are building at once. We have to make up for a little loss of time because we delayed too long about this question as to what our relations should be with the operating companies we found in possession and how closely we should follow our own desire to plan the roads with reference to the future growth of the town itself. But as a result of our negotiations we did utilize the existing companies, linked up their lines with the new lines and then made out a chart that suited us. We deliberately put not merely new trunk lines through the heart of our own town, but two or three trunk lines far out into the suburban boroughs right out to the utmost limit of the city, crossing, in some spots, untouched fields. Wherever we went, however, we were confident that the promoter would follow, that we would ourselves reap an abundant return in increased valuation of real estate and that in many another indirect way the city would find its satisfactory return.

Now in order to do that, we were obliged to join with the companies in the furnishing of capital in almost equal sums for the new work; obliged also to insure to them a reasonable return upon their present investment as a first charge

against the receipts of the new system; obliged to put their money ahead of ours when it came to the taking out of carrying charges; and then beyond all that, when our own money had been cared for, to provide that there should be an even division of profits thereafter.

More than this, we held absolutely the title to every foot of these new lines in the city of New York, and the amortization that is to proceed from the income of every foot of the property is to be in our favor. Year by year there will be a lower price at which we may buy back the entire investment of the companies, until we reach the point where the cost price disappears absolutely and at the end of the period of amortization the lines become the property of the city of New York. Not only that, but under the new forms which recent legislation has permitted us to adopt, we have provided that the absolute tenure of the companies shall be for ten years only. They go in for ten years, and at any time after that we may take them back. If we choose to make a new alignment, if we choose to fit the lines of the future in a different system, if our operators do not behave themselves, in other words, we have the remedy absolutely within our control. We not only provided that we might buy back the private share of the system, but after a great deal of wrangling and discussion with our friends in the companies, we stipulated that we might put in another operator if that operator should buy out the original investor.

Whatever future conditions may be about the operation of the railways in New York City, whether we get to the at present far-distant point of operating for ourselves, we have the power of control in our hands completely. Moreover, in retaining the present operators we are getting expert service for the building up of the new system. Then we are going to set in motion this new vitalizing thing through the town, and we are bound to reap the benefit. For some years we shall have to carry a deficit. We have cheerfully faced that, but it is provided that these

yearly deficits shall be treated as cumulative and all made good to the city before there is any division of profit. So we are bound to come out scot free and then be in a position to take half the net annual return for ourselves.

One important point I ask you to note is that we have said to these companies, with all their tremendous investment, that they shall not make any more money than they are making today until the point has been reached where we may divide equally in the future, when, incidentally, both our title and our right of repossession is made even stronger and clearer than today. If the companies have been able to go a little farther in the past in the reaping of returns than we would now permit them to go, at least we have said, " You shall go no farther," and we have gained absolute control of our transit system.

Now we found, when it came to the laying out of a proper chart, that the tendency in the past, promoted by the railways very naturally and accepted quite as naturally at that time by the city, was to run longitudinal lines along Manhattan Island, to carry others over from Brooklyn and to bring everything to one point down there at the toe of Manhattan. The first propositions we received were practically for a continuation of the same sort of thing, bringing everything down there to the toe and then up into the air in our tall buildings. We were told by the engineers of the Public Service Commission at one time, that if the Woolworth Building were to land all of the 10,000 tenants and employees who use it in the daytime at the nearest express station at the same hour, it would take the express trains of ten cars each, running at their present headway of a minute and forty-eight seconds, just twenty-two minutes to take away the people from that one building. And still we went on building skyscrapers. While the point is not entirely relevant, let me tell you that we have taken up now as a corollary of the solution of our transit problem the proper regulation of the heights of our buildings. We are going to cut the abnormal side of

this sort of growth and, by pressing down, compel a lateral development. And we have provided the transit system to carry that lateral growth.

As I have said, we have spread these lines everywhere. We are going to get cheaper homes and more light and air, and we certainly are going to get a great chance for city planning, when it comes to taking up these undeveloped territories and making them right for the future.

New York, like every great city, has made its mistakes in the past in its planning or lack of planning; but with our promised double growth for the next thirty years to care for, our railway system is going to permit us to go in for the correct planning of the great territories that as yet have not been touched.

No city can foresee in its infancy just what its future will be. If we each knew that ours is a city destined by fate to be great, of course planning would be infinitely easier; but is it not safe to assume that most of the cities that have got a certain impetus are going to go farther and are going to be great? While you cannot choose your type of railroad at the outset, you can so map your streets that there shall be breadth and sufficient opportunity to lay your road through them without the tremendous cost that comes from widening narrow streets. You can make your street plan with direct reference to a future railroad plan. That can be done very readily indeed, and that, it seems to me, is where the question of transit comes in here. You may speculate if you like upon the future, or you may look forward with a certain degree of confidence, but you have got to have railways and you have got to have them right; and no matter whether it be the government of the city of New York, the government of a city of half a million, or a town council in a smaller place, if the building of railroads during the period of the growth of a city is accepted as one of the things that belongs to the activities of the city itself, and if there is willingness to invest city funds, always with the assurance that the roads

will remain city property in the matter of title and ownership, but a willingness to invest city funds and to permit rather than to discourage the going in of those who are willing to lay out privately operated lines on proper city-planning principles, then the cities shall do well indeed.

EDWARD M. BASSETT, Esq.:

I think that the schedule in Mr. Davies' paper giving the relative cost of different rapid-transit structures will be referred to by many cities which are contemplating improved transit. Even I who am not an engineering authority on rapid transit have met with the general inquiry in American and European cities of the relative cost of different rapid-transit structures in New York City. This subject is important because, if the main need of a city is rapid-transit mileage, it may want to consider elevated railroads in whole or in part. But if the main object is to keep its streets free from encumbrances, it will want to consider the more expensive subway construction. There is a distinct tendency for the great cities of the world to consider that an urban rapid-transit system can well utilize all of the different sorts of structure—elevated, depressed, embankment, subway and tube. Electrical propulsion has helped to abolish the theory that a system must be all elevated or else all subway. Electric motors easily carry a train up a grade of 4 or 4½ per cent. Freedom from smoke and gas make subways and tubes more endurable. These different costs and methods of construction that Mr. Davies' paper speaks of can be adjusted to the different parts of a great city, to the lay of the land, to the water fronts, to the congested business portions where elevated railroads might hurt and to the outlying parts where the cheaper type of railway such as elevated, embanked or depressed can supply a greater mileage at the same cost. Hamburg has demonstrated that a good-looking, serviceable and economical rapid-transit system can be part subway, part depressed,

part embanked and part elevated. This instructive system has now been operating about two years. Berlin is using the different types of structure.

Mr. Davies' discussion shows the importance of planning for rapid transit early. I am not an old man, but I remember when New York City had no public transportation except horse cars. If in that day there could have been sufficient foresight to have laid out new streets, especially radial streets of a suitable width for rapid transit, the ultimate saving would have been millions of dollars. The lack of foresight in laying out radial streets for rapid transit is responsible for a large part of the enormous cost of rapid-transit construction that Mr. McAneny has referred to. Buildings have to be torn down, streets already built up have to be widened and private rights of way have to be obtained in order to make room for rapid-transit lines. Toronto, Winnipeg and some of the cities of the Northwest, as well as many of our United States cities that are approaching the million population class, will do well to look into this matter before it is too late. For when a city contains a million people, it always feels the need of rapid transit. Distances from the centers to the suburbs become too great. Its workmen spend too long a time in traveling if they use street surface cars and the city tends to become hidebound. Its growth is hampered. Its methods of production are not economical and it is apt to fall behind in competition with other cities. Every growing city of half a million population should lay out radial streets that will be needed for rapid transit when it has a population of one or two million. In the city of Wilmersdorf, part of Greater Berlin, a type of rapid transit is favored that is quite far-sighted. The lower part of a subway is built in an open cut, the cement retaining walls extending half the height of the future subway, but above that point there is a turf embankment sloping up to the street proper. During the early years of its use passengers have natural light and air. The cost of construc-

tion and consequential interest charges are not great. Later, when more intensive use must be made of the street, the city will build the upper half of the subway structure. The street surface will cover the whole. A subway will be created with a broad street above it without loss due to expense of reconstruction or premature interest charges. It is an admirable way of joining economy with the provision of a broad street. Herr Franz Musil, designer of the new subways for Vienna, was in New York a few months ago studying rapid transit in this country. He is now laying out rapid-transit lines for Vienna, using wherever possible the Wilmersdorf method.

All the radial streets of a city should not be brought to a single center. This idea of bringing everything to a single center, like the Loop District of Chicago, is one of the greatest mistakes that a city can make. It produces congestion instead of distribution. Right here in Toronto you have to some extent an example of congestion due to your street-car lines coming to a single center. Your downtown main corner is already too much crowded. London is a city of many traffic and business centers. This is partly due to history and partly due to intelligent effort during the last forty years. Radial streets should be laid out so as to develop more than a single center, and they can be so correlated by through transit systems that the whole can be tied together.

The use of the motor bus in this respect is most important. I believe that we are in the dawn of the usefulness of the motor bus. By means of subways and rapid transit you can shoot people out to the suburban parts of a great city more rapidly and at a lower cost per mile than they can be transported on the surface. But no city can afford the expense of running rapid-transit railroads within walking distance of every part of its outlying areas. Therefore in conjunction with the rapid-transit system there must be run from the express stations in the outlying parts of the city either surface cars or motor buses so as

to spread out the usefulness of the rapid-transit system. I believe that in twenty-five years motor bus lines for this purpose will be greatly developed. The London company controlling the subways has purchased nearly all the motor bus lines. They do not give a free transfer, but as the bus fare for short distances is only one or two cents, the buses serve to distribute the subway passengers just the same as if the combination fare were five cents or less.

My final point was referred to in Mr. Davies' paper, but not emphasized by him, although we know he appreciates its importance as well as any of us. It is the through routing of rapid-transit trains throughout the whole city, or rather the building of the new subways and connecting up the existing elevated railroads so that through routing is possible. Today practically every rapid-transit line in New York, whether elevated or subway, gathers up its load in the outlying districts in the morning, empties it in the center of the city and sends its trains back nearly empty. The one exception is the interborough subway, which runs through Manhattan under the East River and through the downtown part of Brooklyn. This subway gets a reciprocal load through the business districts every morning. But even this subway does not at present extend to the outskirts of Brooklyn. The new dual rapid-transit plan, which connects up the elevated railroads as well as the old and new subways, has been planned so that through routing will be the rule and not the exception. Practically every train can, in the morning, run from a suburban section through the heart of the city and out again to a suburban section on the other side. The train is then reversed and it distributes a new load through the entire city. Some call this the pendulum movement of rapid-transit trains. I like this word myself, because it not only expresses through routing, but also efficiency and economy of movement. The effect of such a disposition of rapid transit on distribution of business and industry is of course most beneficial.

MR. DUNCAN MCDONALD, *Controller, Montreal:*

As was justly observed here by a number of speakers during this congress, transportation is very largely the basis on which city planning and building must be founded. To give you an idea of the importance of the business of city transportation, I may say to you that our government records and reports for 1912 fixed the value of our railroads in Canada at the great sum of $1,500,000,000.

In Montreal we have to deal with a franchise of some forty years, a renewal franchise, and when figured out on a conservative basis, the aggregate receipts of that franchise during the forty years amount to $800,000,000; and this amount is figured *pro rata* to population on a sum of receipts 25 per cent less than most of your large cities in the United States of populations varying from a million to three or four million are receiving now from their street railways and subways.

As Mr. Adams said last night, where town planning means going into a new and open territory, then you can lay out a town with comparative ease. If we had a situation of that kind to deal with, with the experience we have today of the various cities in America, I suppose our first provision would be to look out for our railroads, as Mr. Davies said. They are the main arteries that are to bring the population from all over the country to our cities.

In a large city, next in importance is to locate the subways and then follow the distribution from those subways by electric cars as it has been done up to the present time, and later on, as has just been developed in Europe, by motor buses.

The experience in London, which has been very impressively referred to by Mr. McCollum, has been credited in his paper to the authorities that are running a London bus service. I must say in that connection that from personal information received in London, the success of the London bus is largely credited by Londoners to municipal control. They tell us that the inauguration of that suc-

cessful bus service in London is due chiefly to the fact that the municipal and police authorities of London, after buses had been in use for a few years, insisted positively and laid down a measure that was to guide the bus traffic, and that measure imposed strict conditions of size and weight and number of passengers on the bus company. They simply told them in plain English, "If you cannot find a bus that will suit our streets, that won't be too heavy, that won't be too noisy and that will run smoothly, we must command you now to take your buses off the streets." That imperative order given to the London Bus Company resulted in their engineers and assistants getting to work, and inside of twelve months they had evolved a new bus that met all the conditions imposed by the municipal authorities, and that type of bus has been running successfully ever since. So much for the part that was taken by the municipal authorities of London in this inauguration.

The flexibility of the bus has been referred to in Mr. McCollum's paper. One of the great points of flexibility that is so much appreciated in London today is the fact that the buses that run in the congested part of London all the week can be turned out toward the country on Sundays and holidays. That is a proof of the flexibility of the service there, and it is greatly appreciated in London, where fresh air is so badly wanted in a great many quarters, and which affords the possibility of Londoners running out in a comfortable way into the country on Sundays and holidays, and that should contribute to a better state of health, which we are all striving for in all our municipalities.

The advent of the bus, I should say also, should be welcomed by the electric-car companies, as it affords, perhaps, a more economical means of satisfying the growth of traffic that is constantly developing in cities. I mean that the tramway companies on this continent are often handicapped and put to large expense by extensions of lines into thinly

populated suburbs, which can only be done at the large cost that has been referred to of at least $25,000 per single mile. The addition of a few buses in those quarters would often solve the difficulty at a much lower cost.

The buses should also be welcomed by the tramway companies as an economizer, and I think in the future it will be largely used in this way, and that is that it will serve to take care in large cities of that peak load that occurs in the center of large cities and will also be used to a large extent on short hauls which now create that deplorable condition of overloading that we have all heard so much about in the tramway business. What I mean is that the maximum load or peak load on each car, inward or outward, is generally at a point about halfway between the center and the extreme limits of the town, and that to take care of that peak load a short line of buses would be very economical and very effective. Then the bus coming in as another useful means of city transportation will take the top off that peak or take the short hauls, and if properly operated with that object in view should be a very good means of reducing that overload factor.

The subject of transportation is so vast that it would take hours to discuss even some of the most important details, but I think it is evident today to the citizens of large cities from 500,000 up, and our experience leads us to the belief that the traffic in future in large cities can be best taken care of by subways, proportionate to the investment they can afford according to their population, and by electric cars and buses.

Mr. E. P. Goodrich, *New York City:*

The general subject has been covered so well that perhaps it would be of more interest now to mention a few specific points which have to do with the determination of bus operation, versus subways, of street widths and of some of the other matters which have to do with city planning in detail.

I may say first that the Borough of Manhattan authorities have been confronted with the most intricate traffic situation, vehicular and street surface railway, possible in any of the cities in the United States, except a few small sections of Boston, where the streets are very crooked and where a special type of car has been evolved, and perhaps a few sections in Chicago known as the Loop District, where conditions of congestion have been acute.

The studies made in Manhattan have covered the taking of traffic statistics in considerable detail. They have been studied with reference to the speed of operation of the street cars or of buses, of the movement of vehicles between obstructing vehicles standing at the side of the roadway and the cars; the ratio of the width of the street to the speed of operation; the number of people that can move on a given width of sidewalk; the cost of maintenance of pavements under vehicular traffic of different intensities; the extra cost which is involved by allowing buses to operate on streets over and above that of the other types of street use—all in order to see how the city is involved in the letting of franchises for these various activities.

For example, it has been stated and is confirmed by our traffic statistics that a motor bus operates normally more rapidly than a trolley car. This is a very material point in the determination of the kind of vehicle which should be operated. In other words, you can get the traffic through the congested districts easier and more rapidly with a bus than you can with a trolley. The cost of bus operation, however, is determined very largely by the type of pavement. It has been discovered that the buses follow the good pavements. In other words, the city is made a partner in the operation of the buses.

When the horse car operated on the streets it was obvious that the calks of the horses' shoes wore the pavement between the tracks and for a certain space outside the tracks where the horses used the right of way. That led to the requirement that the railway companies should maintain

the pavements for that space between the tracks and some space outside of the tracks.

The trolley companies at the present time are stating that with the modern structure they should not maintain pavements. The horses have been done away with; the rails actually facilitate traffic because a heavily loaded truck deliberately drives on the rails, and usually slows down the operation of the cars. That is doubtless true under many conditions. It is true during snowy weather, when the street cars have cleared their part of the street, that the vehicles take to the car tracks and block the traffic; and that blocking of the traffic by the vehicles on the tracks in Manhattan last winter was greater than the delays from breakdowns of the cars themselves.

On the other hand, in the summer time you will find, if you watch traffic, that the street cars actually keep vehicles away from the tracks; they are pushed aside, and during that time of the year or during the major portion of the year, the street cars take over for almost exclusive use a large portion of the street. They should therefore, it would seem, pay back to the city in some way, for the use of that thoroughfare, a return on their gross income possibly or an amount ascertained by some other means.

Now the motor bus, when it comes to operate on the street, is not confined to a particular strip of pavement as the trolley is, and which the old horse-car operation actually wore out more rapidly than the balance of the roadway. The motor bus goes all over the street. It, however, has a right of way which is different from that of the normal vehicle, and it would seem that it should contribute toward the maintenance of the pavement in exactly the same way in which the old horse car did, and which the modern trolley car does in some instances. It is true that some trolleys do not have to do it, their franchise does not cover it.

In order to determine what this proportion should be,

careful statistics were taken on certain streets over which buses were operated in Manhattan and over others which were comparable with them in all other respects. In one instance, for example, on a street on which the traffic was fairly uniform, the statistics were taken on two sides of a certain cross thoroughfare. There was, perhaps, 5 per cent variation in the non-bus traffic on the two sides, but the cost of the maintenance of the pavement was 40 per cent more on the side where the buses operated. That was a clear demonstration that the buses deteriorate the pavement. The pavement was of the same quality, laid at the same time under the same specification.

The cost of such operation, as closely as could be determined, was three-tenths of a cent per bus mile. This specific figure is not necessarily general, but it is the kind of information we must get in order to include this item among the conditions which are laid down in granting a franchise.

In London they found that the introduction of buses actually disintegrated the foundation of the pavement. The surface was woodblock, macadam and asphalt, and the coating stood up pretty well, but the foundation of the London pavement broke down—so much so that in answer to questions sent out to different surveyors in the different districts, the answer was almost unanimous that whereas they used to have six-inch pavements, the streets over which the buses now operated would require foundations nine or ten and sometimes twelve inches thick.

That need not necessarily be taken as a criterion for work in this country, because the general quality of concrete used in London pavements is believed not to be as high as that used in the United States and Canada. The quality of the cement and of the stone is slightly different. Where they would use a ten-inch foundation, eight or nine would be sufficient in most cases in this country. In Manhattan on Fifth Avenue, where exists practically all the bus traffic at the present time, large areas were repaved

last year with a nine-inch foundation, where it was six inches before.

The chance of accident has been referred to in reference to the operation of buses, and it was suggested that because the bus operated through the most congested portions of the city, the accidents were probably greater on that account. Accident statistics are taken on all the highways in Manhattan by several authorities and have been for years. There is one association called the Highways Protective Association that keeps track of the fatal accidents. Those were all mapped by the Manhattan authorities and very carefully studied as to location, whether accidents took place in the congested districts or at special points of congestion of thoroughfares, or on wide streets with or without islands of safety, on trolley-line streets, on Fifth Avenue, where the bus lines operate, and so forth.

It was discovered that the spotting of these accidents was very clearly coincident with the congested points of population; also that where the streets crossed at long diagonals, there was a considerable danger at the intersection—there was a cluster of accidents at those points. Aside from those facts there apparently was no indication of more accidents taking place where the motor buses were operated, in comparison with the trolley car, for example. It was a matter of the people crossing the streets, the use of the streets by the pedestrians, rather than the motor bus operation.

It is believed by the speaker that when as much care is exercised in the construction of the motor buses and of their design with regard to fenders and the prevention of accidents that has been evolved with regard to street cars, there will then be no greater accident statistics developed from buses than from trolleys.

Again, the London condition with regard to bus operation is not comparable with that in this country. Both in Canada and the United States, I believe, we pay more attention to the franchises. The London buses operate prac-

tically without any franchise. They are simply supervised by the police authority. The police impose a maximum weight limitation; they require a certain maximum limit of passengers, of course, and—something which will be of interest to most people, which I believe will be new to some of you—each individual bus has to be submitted to a test for noise. There exists a board of three men, and when a bus is ready for operation, it is submitted to them and operated on certain grades under given conditions. If the members of the board decide that the bus is too noisy, it goes back to the shop to have the noise reduced. There is no further restriction in London. A motor bus company can decide that it will operate over a certain street, and then can operate over that street. It can shift its routes, and they are constantly shifted, from day to day practically, on the London systems.

It would seem to the speaker that that is not a wise condition, because it develops the possibility of acute competition, not only with other bus lines, but in some cases with the municipal trolley lines. The latter might be injurious to the profits of the municipality, although in another sense possibly benefiting the general transportation facilities of the city.

Buses are now operated in New York, Washington, Detroit and Utica, so that they are no longer an experiment. They are a real benefit, a real addition to the conveniences which exist in cities in need of transportation.

I was very glad that Mr. Bassett spoke of the effect of bringing street railways to one point. I could specify a city about the size of Toronto in which that condition exists. They have a wonderful radial system of highways and they have ample trolley accommodation, but all the trolleys have to go through one of four corners. Can you imagine the result? The congestion of vehicular traffic at that point is such that the elimination of all left-hand turns actually produces a betterment. The real-estate values at that intersection are about in the proportion of $1,500 per

front foot at the corner to $500 per front foot one block away and $150 per front foot five blocks away. That is a condition of affairs which is abnormal, and one which should be obviated by the use of a greater number of cross streets near the intersection. The operation of the cars through a gridiron without turns in and out of traffic will greatly improve traffic facilities, since the speed of operation over the tracks crossing at right angles is much greater than that of any other combination of trackage.

One final point with reference to street widths for the use of trolley, subway and open-cut construction. One special case has brought this matter acutely to our attention of late. A hundred-foot street can accommodate a four-track subway, including entrances, particularly if the latter are on private property, as I believe they should always be. It can also accommodate a trolley line and two lines of vehicles outside of the trolley, with ample sidewalk space. The special street in mind is a very congested city thoroughfare, but affords ample facilities as now rearranged.

One hundred and twenty feet are required, however, if you are going to allow an open-cut construction. Less than 120 feet is too narrow to allow proper side conditions, except possibly in outlying districts where considerable sidewalk width is not required. If you are to have an open cut which may eventually be bridged, but temporarily may have trolleys along the sides, together with the rest of the street traffic, 140 feet is the minimum width which should be designed. It would seem, therefore, that normally 120-foot streets should be adopted where land is cheap. If land is more expensive and a subway will be the earlier type of construction (not the open cut), 100 feet is an economical width and the one which should be used.

MR. W. A. DOUGLASS, *Toronto:*

I wish to ask a question of Mr. McAneny. He made the statement that in extending the trolley or subway service

to the outer limits of New York City, they gained through the advance and in the value of the real estate. I wish to know if they made any special arrangement for that or whether they simply got the increased taxation that came from the increased land value? Have I made my question clear?

MR. MCANENY:

Yes. In getting out toward the suburbs we have used cheaper types of construction. We have used subways in the heart of the town, running into an elevated road of the better type, and then the older fashioned elevated road, the cost coming down as we go out. But we have made no attempt to assess upon the property benefited the cost of these enterprises. That method was discussed at considerable length in our conferences, and we were advised that we were without power legally to do it. But we do count, of course, on the increased valuation and the increased returns through the ordinary processes of taxation.

MR. DOUGLASS:

I knew there was a discussion of that kind, and that was the reason I wanted to know if you had acted on that discussion, because it was said that the increased value of the land would have paid for the whole of that subway. Do you think that was correct?

MR. MCANENY:

In time, probably, yes; but to attempt to assess that increased value over a number of years and to make any contract at the beginning anticipating just how it would work out, and then to distribute equitably the benefit over a great territory—all of those practical considerations were weighed and added to the conviction that we were legally disabled, so that we came to the conclusion that we had better not try it. Where, however, we were laying out a system that was practically city wide—the benefit given to

pretty nearly every part of the town and the cost laid upon all the people—we thought it would come to the same result through another medium.

MR. DOUGLASS:

Do not the speculators carry off the increased value?

MR. MCANENY:

I have never speculated; I do not know. It is impossible, of course, to prevent some variation of private return.

MR. DOUGLASS:

In the last week or two this statement was made: that the building of the Gerrard Street road cost $130,000 and the increased value of the land was some $300,000 and would have paid for all of that improvement. Why should that go to speculators?

MR. MCANENY:

We may, perhaps, count that among the unavoidable incidents of extensions of this kind.

MR. ADAMS:

In dealing with the subject of transportation, we have had an experience in London which is perhaps somewhat useful. Some reference has been made to the facilities which London has offered for the economical working of the motor bus. I think the comparison between New York and London is this: that in New York about one-half of those who travel are carried by rapid transit and the other half by surface transit. In London roughly one-fourth are carried by rapid underground transit and the other three-fourths are carried on the surface. The peculiarity of the two cities must be borne in mind. In London we are spread over 690 square miles, and I think in New York, out of the 300 square miles over which Greater New York extends, a very large portion of the population is centered in Manhattan. On one very small spot there are no less than half a million.

The point I wish to make is that these questions have not to be considered on general lines, but from the point of view of the density of population and of traffic; and I should rather reverse the point that was made by one of the speakers, that town planning should be based on transportation, and put it that all transportation should be based upon proper town planning. That is the proper order of things, the natural logical order, that if you are considering any portion of the city's life, and its transportation is one of its most vital portions, the questions of the character of the development within that city and the density of its various parts have to be taken into account.

In London we encourage surface transportation because we have open development and because our population is spread over huge areas. I think the average number of houses in London to the acre is about six, when you take the open spaces, the roads and agricultural land into account. Therefore it would never pay on a very large scale to develop rapid underground transportation. For the success of that method you require concentrated population. In New York in 1904 the return was only about 4 or 5 per cent. It is now 12, but the transportation has enormously increased, owing to the concentration of population in Manhattan.

I would like to express appreciation of the splendid work done by the New York Commission, and I think that the best step which they are taking in connection with this problem is in going back to the root of things and saying, " We are not going on as a community guaranteeing the cost of these tremendous enterprises "—and it must be remembered that in this case the community is not going to get any interest on the capital it is providing until 6 per cent is paid on the capital invested by the private investor—" without first of all regulating the height of buildings and controlling the congestion which is causing such serious difficulties."

With regard to transportation in London, I may give you a personal example. I live rather over six miles from my office. There are three lines of surface transportation available for me. One is a surface-electric railway, running instead of the almost obsolete steam train. In a few years' time I anticipate that there will hardly be a steam train running out of the center of London into the 15 or 30 miles' radius which will not be electrified, except the great main trunk lines.

This train would cost about 25 cents return for my journey to and from the office. I travel most frequently by the motor bus. It would take me seventeen minutes in the train, and I usually have to reckon on three or four minutes' waiting for the train and sometimes walking from the station, which is not conveniently situated to the office, and I reckon about half an hour as the journey by train for that six or seven miles. By bus it takes me thirty-five minutes, but I get off at the door of the office and the cost to me is eight cents per day by return ticket. If I traveled by tram, the cost would be the same and the time taken would be forty minutes, or five minutes more than the bus each way. The tram has to pay enormous charges for street widening, for rates upon the assessable value of its lines and so on, and the advantage which the bus has is in three ways, and they ought to be taken into account by anyone who is considering the question of applying the motor bus in this country.

First, the bus gets the enormous advantage of conveying passengers through the central and most dense part of London, which is inaccessible to the tram. This enables passengers to travel without changing and secures for the bus the best-paying routes. Second, the bus contributes very much less to the rates and does greater damage to the streets than the tram. Third, so long as the bus runs coterminously with the tramway, as it happens to do in my own case, you will find that the cost per mile is less than a cent; but as soon as it gets beyond that zone, up it goes

to two or three cents per mile because of the absence of competition.

The development of the tram in London is therefore not to be regarded solely from the point of view of the returns of the rate-payer. It is of inestimable value in promoting competition. We have to provide costly rapid transportation underground in our large cities because we have allowed the population to concentrate too closely together. It is said that if we allow them to spread out in the country, we will have to carry them farther. We will, but at a cost of fifty or seventy-five thousand dollars a mile instead of $3,000,000. But when cities are as large as London, you will find that it takes from twenty-five to fifty years to make any material difference in the distance that you have to travel in different densities of population. With a circumference of 60 miles, which is the circumference of Greater London, the extra distance you have to travel by spreading your population wider can hardly be reckoned, it is so small. In a small town of 50,000 inhabitants I think it takes some seventy-five years to increase the radius about a mile, by limiting the houses to ten to the acre instead of twenty to the acre. These points in regard to transportation have always to be taken into account in connection with our town-planning problems, and I think we in England owe a special debt of gratitude to those who in New York and other cities are so carefully studying this problem.

Another point is that in London we can run our motor buses on good hard roads; here you would not be able to run them into the suburbs unless you first of all put down a good hard foundation underneath and a good surface of macadam on the top. It is difficult getting out in some of the rural roads in a new country such as this is on a dry day without being smothered in dust. We have no such roads in London. If we had, it would be impossible for the motor buses to run upon them and pay their way.

MR. BASSETT:

I do not think that Mr. McAneny's answer to the question asked him by the gentleman from Toronto is quite satisfactory to some of us who know the circumstances surrounding the beginnings of the new comprehensive rapid-transit system for New York City. The first step was to amend the Rapid Transit Act so that it would empower the city to carry out the intended program of subway building and also render the operation of the city-owned subways attractive to private companies. During this work of amendment a carefully prepared section was framed, introduced and passed, providing for the assessment on the property benefited of all or part of the cost of a city-constructed rapid-transit railroad. This is now part of the law. Assessments can be paid in ten annual installments. Mr. McAneny was not only interested with others in the framing and passage of this assessment provision, but during the official discussions that preceded the laying out of the railroads he, with Mr. Maltbie and myself, advocated the utilization of the assessment method in many localities, especially in outlying localities where the new lines would bring greatly increased values to vacant property. But certain parts of the city, some of them as far distant as 11 miles from city hall, had already obtained a city-built rapid-transit railroad without any assessment. The Borough of The Bronx was the one favored outlying locality when the first city-owned subway was built. This fact caused many people to say that inasmuch as parts of The Bronx had been supplied with rapid transit without assessment, it was unfair to impose assessments on Queens or Brooklyn. Their argument, although I know it never appealed to me and I believe never appealed to Mr. McAneny, did appeal to many of the public officials, and the outcome was that a clear majority developed in the Board of Estimate and Apportionment and also in the Public Service Commission in favor of the abandonment of the assessment plan. This episode contains instruction for other cities,

as it shows that if a city is to utilize the assessment plan for city-owned rapid transit, it ought to apply it in the first instance and not allow one section ten miles out in the suburbs to obtain rapid transit without assessment and then expect that other outlying areas can be assessed. It is the same question that sometimes arises with sewers. If the cost of certain trunk sewers is assumed by the entire city, it is hard to assess them in other localities.

Rapid-transit lines improve outlying areas in much the same way that sewers do, and the area of benefit can be determined just about as accurately. When the landowners in a given locality think they have secured a subway, they do not want to be assessed. On the other hand, the landowners in those areas which are not successful in securing a subway and who find home-seekers diverted to other localities, sometimes more distant from the city center, dislike to pay taxes to meet interest deficits on subways that are built to favored sections.

MR. MCANENY:

As I have been condemned for my courtesy, I naturally feel like abusing someone. But I am bound to confess that Mr. Bassett has stated the case accurately. The plan for paying for our roads or part of them by means of assessment was seriously brought up, and I still wish very strongly that it might have been tried. I still believe that in principle it is correct. It was not possible, however, in the midst of the difference of opinion that existed at that time and in the face of the practical arguments advanced by the other side, to adopt the plan. The majority that disagreed with us, in each board, was responsible for the fact that it was not adopted. I think, however, it is fair to them to point out once more some of the difficulties that were suggested.

In the first place, we had a great rapid-transit system. It consisted as usual of trunk sections and the feeders that went out into the rural and suburban boroughs. It was

shown to us that after that first system had been in operation for some time there had been no increase of assessed values above 96th Street in the Borough of Manhattan as a result of the building of that subway; that is, increases that were directly attributable to that enterprise. As you went farther north the rate began to go up until, when you got into The Bronx, there was a very considerable increase.

When we proposed to lay a system three times as great as the first one—again to consist of trunk lines and of feeders—and it was proposed to assess, we found it exceedingly difficult to reach any point that would be fair in distributing the cost of the trunk lines that, presumptively, were going to continue to run as the old one had, and of the feeders that were going to develop new territory. And then came the objection of those in the Boroughs of Queens and of further Brooklyn against being assessed for a thing that had been given to the other boroughs on another basis. It was claimed that they were entitled to some rights, and when it came to a discussion throughout these boroughs, we found that their people were unanimously against the assessment idea. Then came several legal objections urged very forcibly by the mayor. The upshot of it all was that we did not do it.

When it comes to the situation of today, keep this in mind: that if we had run but one line out into new territory, as the whole of the enterprise, unquestionably there would have been great development along that line, great demand for lots and increase of value. But in laying a number of lines throughout every part of the city as yet undeveloped, we find that the demand is so distributed that there is almost no appreciable advance in values thus far. I asked Mr. Bassett if he recalled any, and we do recall that in the little settlement of Astoria there seemed to be somewhat of a boom on, but that has receded. In other words, the values have kept a certain balance all through the town, and we are convinced that although we are going to get an improvement, benefits that will come directly from this im-

provement and investment, it will be more gradual and that the speculator is not going to have nearly so much chance as the investor who lays out his money in streets and squares and takes his time for the return to come. Of course, wherever we go with such a road, by far the smaller portion of the cost is placed upon those parts of the city that might be assessed; the greater cost is in the center. But wherever these effects are felt, wherever there is a benefit from the transit system, it will entail investment for boulevards, streets, parks and so on which must be paid for by the property. In that way the investor must continually put in his own money.

These are the reasons, in brief, why the plan was not tried in New York, although I as firmly believe as Mr. Bassett does that where there is a chance, in a new situation, to try out this plan, and where the law of your State is on your side, certainly it ought to be done.

May I say just one word in reply to Mr. Adams? I did not mean to suggest that the railway system should be the compelling basis of the city plan, but that the two elements must run together. Naturally, when you have a town that is built up before you begin to build your rapid-transit system, it has to follow the old natural courses to some degree; but I did have in mind that in a new development your railway system must follow your city plan and that they ought to be interdependent. In this enterprise of ours, in which we have put in not only a radial system, but several radial systems, we have provided for many new centers of population and of trade, principally in the undeveloped parts of the town. All of that belongs to a phase of city planning that we heartily wish now we had been able to undertake thirty years ago. You cannot always tell. The natural development always comes first. Washington lies absolutely to the west of the point that L'Enfant supposed would be the center of the town; to the east, as he planned it, there has been but little development.

MR. DOUGLASS:

At this Conference we have been discussing the physical. Now the question that I raise is a profoundly religious one, and I have looked at that passage again and again which says to seek first the proper distribution of things, of righteousness, and then you get all the physical that you require.

I lived in New York City at one time near where the New York Central terminal is now. I paid $30 a year ground rent. I think the lease was made about 1850. Now you could not get the same lease for less than $4,000 a year.

In this city we have had to deal with the transportation question, and we are dealing with it today in a most extraordinary manner, in a manner to develop millionaires, and millionaires are a curse to any country. We are reproducing the despotism and feudalism of the Old World. For example, we built the C.P.R. across this continent for the purpose of rapid transit. It cost the country $50,000 a mile and it increased the value of the land fully 25 per cent. A tax of one dollar an acre on the land affected would have built the road. The speculators have taken out of that country a great deal more than two dollars an acre. I happen to know something of the inside history of that speculation. I had to write the history of a great many of those settlements year by year, to see if they could raise crops as fast as the interest accrued on their mortgages.

MR. A. J. LAVOIE, *Montreal:*

I would like to ask Mr. Adams a question about roads. He made a comparison of the roads in England with those in Canada. I left England about the end of February and they had almost no snow at all during December, January or February. Only about half an inch fell in the beginning of February, and with that amount the auto buses were running very slowly and carefully and two buses turned over and four people were killed. I would like to see the

buses running in our streets with our climate. These things must not be forgotten. It may do to compare London with London, but we have frosts here in Canada that break our roads and make it very difficult to build roads to stay.

MR. ADAMS:

I merely wish to reply to the personal point raised by Mr. Lavoie. I am afraid he is a little more thin skinned than I am. I know your difficulties and I appreciate them fully. The point was that in considering the installation of motor buses, you would have to take into account that your roads are not so good as ours. That was the whole point. Why should one not be able to venture an opinion of that kind without being regarded as a critic of your conditions? This is a new country; ours is an old one. The Romans made our first roads, and we have the benefit of centuries of road-making to our credit. We claim no pride in the fact that our roads are better than yours or that we have not got your frost and snow; but with all deference, I think you might perhaps do a little more for some of the surburban roads. I think that can be done, with a little care, in the future. When a suggestion is made of that kind, it should not be taken as carping criticism; it is merely a statement of fact that if you are to have motor-bus traffic, you must have a good road surface. In my own neighborhood, within the last five years, one road with 12-inch foundation and six inches of macadam surface has been relaid three times to enable it to bear the heavy traffic. Roads must be of the best construction in order to bear the friction of rapid motor bus traffic, and the great cost of making and maintaining these roads must be set against the advantages claimed for transportation by bus.

MR. N. CAUCHON:

I would like to add a word of information for those who are interested in motor bus service in Canada, in view of some of the remarks made, and which will be of some in-

terest to Mr. Adams. We have had some experience with a motor bus service in Ottawa. On one occasion in winter, during a storm, when the snow reached a depth of four inches, the street railway was tied up, while the bus service was able to operate even when the snow had reached a depth of 18 inches. It was for suburban service, for a part where there was development outside of the city. The buses were patronized by everyone who could climb on to them throughout the city for that period. If four inches of snow gets ahead of a street railway in this country, it is generally tied up; the sweepers are not able to overtake it. But the motor is able to operate through 18 inches.

Another point. This was an attempt to put a motor bus service on a paying basis, and the greatest difficulty was the operation over bad roads in summer. That put the bus service to the greatest trouble. In the winter the snow fills the hollows in the road, and when it is packed we have a hard, smooth road; but in the summer, on the pavements maintained over a portion of Ottawa and beyond its boundaries, the difficulties that that bus service had to contend with were almost insurmountable. It is an undeniable fact that there is a great deal of country in Canada over which the easiest mode of travel in winter is on snowshoes. In summer it is impassable. No one can take offense at that remark, because I belong to this country. I am not thin skinned about it at all. You must have a good road surface before you can operate buses successfully in summer. And whether you can operate them on a paying basis at all, depends altogether on the density of traffic.

MR. GOODRICH:

In Ottawa, after this 18 inches of snow had fallen, was it packed on the pavement to any depth?

MR. CAUCHON:

It was plowed. They plow it there in big storms. This 18 inches of snow, as I may remark, was beyond the car

track; the motor service operated over one of the main streets of the city; it had to compete with the car service for two and a half miles of streets on which it picked up passengers, taking them away from the street railway. When it got beyond that, the roads were plowed. I may mention that the street railway in Ottawa removes the snow from the streets on which it has a franchise, and practically keeps or attempts to keep it down as far as it can, and it does very well, to a four-inch layer of snow. Outside of that, you get the road snow-plowed very often in the city.

MR. GOODRICH:

Could the buses operate on any depth of snow?

MR. CAUCHON:

There came a snowstorm which deposited about 18 inches of snow, and both before and after the plowing those buses plowed their way through that snowstorm.

MR. GOODRICH:

After the plowing was there snow on the pavement?

MR. CAUCHON:

After the plowing there would be four or five or six inches of beaten snow. They operated on a surface of beaten snow, and they operated through 16 or 18 inches of a new snowfall which had completely tied up the railway.

MR. GOODRICH:

What was the condition when the beaten snow commenced to melt?

MR. CAUCHON:

Well, you are in slushy roads.

MR. GOODRICH:

I have seen motor buses break down by breaking a spring in the ruts which are formed in compacted snow as it be-

gins to melt. That is the difficulty, and if that trouble can be obviated by some means, I would agree with the speaker.

MR. CAUCHON:

In this part of the country that I speak of the ruts and humps and hollows are far greater in the macadam road than they are in any snow road. In fact the snow is a godsend to us in many parts of Canada.

MR. FOX:

I would like to ask Mr. McDonald a question or two. Can a bus be run in winter? And can a bus be run in America for a five-cent fare?

THE CHAIRMAN:

Can Mr. McDonald answer those two rather leading questions?

MR. MCDONALD:

I can answer, but I do not know that I can convince you. The motor bus has the same size of chassis and the same wheel base and the same width of track as the ordinary large touring car intended to hold seven or eight people. Now ask yourselves if you have ever seen a large touring car running all winter in Montreal and Toronto or in any other cities? If you have, then you have seen a motor bus running in the winter time. That is my answer to the first question.

As to the five-cent fare, I have given some study to the matter, and I am fully convinced that under proper conditions motor bus service can be run all over America at a five-cent fare, and profitably.

PROF. D. R. KEYS, *Royal Canadian Institute, Toronto:*

In my residence in New York thirty-five years ago I regularly took the five-cent bus up and down Fifth Avenue,

and I am sure the splendid deputation of New York men can confirm me in my belief that that was a good-paying proposition.

I think the most important difference between European and American rapid transit has not been brought out at all this morning. In Europe there is a limit on the matter of people carried in the different kinds of conveyances. I doubt whether in this country we could enforce such regulations as prevail everywhere on the Continent and in England with regard to limiting the number of passengers. That is a question that I wanted to ask the gentlemen who spoke before Mr. McDonald. Have they in Ottawa been able to limit the number carried? He spoke of the crowds climbing on to the buses. I doubt very much if they attempted to limit the number. Now if you will think of the danger to which even in London people are subjected, you can imagine how much greater the danger would be if people were allowed to crowd those vehicles. That, I should think, would be one of the most difficult problems in the management of buses in this city.

Mr. J. O. McCarthy, *Controller, Toronto:*

Any word from the city of Toronto at this time in regard to transportation would, I fear, be too largely a recitation of aches and pains and indigestion to be very acceptable to the Conference. We are in the attitude of a patient, needing a good deal of diagnosis and a good deal of advice at the present time. Our difficulty reminds me of an experience some years ago. I had a twinge of rheumatism, and I went to a doctor and asked him what I should do. He said, " Diet," and gave me a list of foods that I was not to eat. I was away from home a week later and had another twinge, and I went to another doctor and asked him what to do. He said, " Diet," and gave me another list of foods that I was not to eat. I put the two lists together and found that the only things they had left for me were stewed tripe and buttermilk. Now in the diagnosis of our case

in Toronto by the different experts, I scarcely know where we shall land.

The city of Toronto, appreciating the need for better roads and its own responsibility, is at the present time in coöperation with the Province and with the rural municipalities around Toronto for the improvement of the rural roads. The city has already expended a very considerable amount of money in road building altogether outside of its own limits, and will, I believe, go on spending more money, realizing that part of the responsibility for the roads outside of the city is its own.

In regard to transportation in Toronto, may I in one minute state a daydream that I would like to see for the city? I would hope that no more of our downtown streets might be occupied by surface street cars, or tram cars as they are sometimes called. I would hope that some streets that now have a double line of cars might in the future have a single line instead. I would hope that the radial traffic from the outskirts of the city might be brought into the center through two or three miles of subways or tubes, and that the surface congestion downtown might be relieved by motor buses.

I may say that we are at the present time moving to begin an experiment with motor buses, and we will probably have a number in operation before the end of the year. The ideal that I would like to see for Toronto would be that our downtown streets within a couple of miles of the center should not be more occupied by surface cars, but rather less occupied; that motor buses should assist in the surface traffic and that the traffic from the country and from the outlying portions of the city, on the radial roads, should be brought to the center of the city by separate lines of traffic, subways or tubes as the case might be.

It may be of interest for me to say that the franchise of the Toronto Railway Company expires in September of 1921, and that the city will undoubtedly take over that

franchise and run the entire system municipally at that time if not before.

PRESIDENT OLMSTED:

Mr. Davies seems to suggest that the method of laying out rapid-transit routes in advance of actual need and reserving them from other occupation is apt to be impracticable because of the carrying charges for this unused land. That undoubtedly may be the case sometimes, but I took a pencil and did a little figuring on the basis of the figures given by Mr. Davies, and I think the results may be of some interest.

If you reserve a 66-foot right of way for a rapid-transit route either in the middle of a broad main traffic boulevard or as a separate right of way, and if you hold that land idle for only twenty-five years, paying 6 per cent per annum carrying charges, you can afford to pay $10,310 an acre for that land and still come out even on the saving in cost of construction given by Mr. Davies for the open cut as against the subway. If you pay $2,402 an acre for the land, you could hold it idle for fifty years and still come out even. These limiting land prices would be largely increased if Mr. Davies' figures for the open cut were reduced as much as seems probable by using a 66-foot right of way with room for planted side slopes instead of concrete retaining walls, and with the possibility of four tracking in the ultimate future. Or if the width of the right of way were reduced to the minimum for open-cut construction with walls, the price of the land could be nearly double the figures I have given. Clearly a city can afford to spend a good deal of money in reserving independent routes for rapid-transit lines if they must otherwise be put under a street.

There is the alternative, of course, of an elevated structure, which would be still more economical; but it is worth a good deal to build even an elevated structure on a separate reservation rather than in a street of limited

width. Moreover, the above calculations are based upon the assumption that such reservations for future rapid-transit lines would be held absolutely idle and useless. In fact they would ordinarily be of sufficient value for park purposes to pay a part if not the whole of the interest charges until used for transit purposes.

One other point in this connection. If you provide such an independent right of way for your rapid-transit lines at the time of laying out the street system of the city; if you reserve a 66-foot right of way for that purpose every two miles on an average all over the city, that means a reservation for rapid-transit purposes of only six-tenths of 1 per cent of the area of the city devoted to a device that will insure good rapid transit whenever the growth of the city justifies the construction.

I think these points are of interest as bearing upon the feasibility and wisdom of providing, in city planning, for the reservation of rapid-transit lines a long time in advance of the time when their construction would be justified.

THE CHAIRMAN:

Mr. Davies will now comment on any of the points raised.

MR. DAVIES:

There is very little that I can add. Those of you who have not read the paper *in extenso* may not have grasped, from the condensed form in which I presented it, the full line of thought. The subject referred to by the last speaker I have made clearer in the text of the paper than I possibly could in the suggestion I gave in my opening remarks.

It seems to me it was a very happy idea to couple together the motor bus proposition with rapid transit. The motor bus is taking its place permanently in the general transit facilities, and its flexibility makes it a wonderful adjunct to the other means of transit. And as was mentioned, it is of great assistance during the peak load.

In relation to Mr. Goodrich's remarks on width of streets,

there is just one thing I would like to add; that is, that our street systems today are practically what they have been from earlier days. There is not the same necessity for great widths of streets to permit the development of rapid-transit facilities as there is under the new burdens put upon those streets by increased vehicle and motor traffic, besides the usual surface railroads for local distribution.

The rapid-transit facility can be well provided on a very narrow street, either by subway or elevated structure, without materially curtailing the further use of that street; but the conditions of vehicular traffic today are putting greater burdens on the street surface than the rapid-transit proposition does, and the two things must go together inseparably—the development of additional accommodation upon the streets of cities for the surface uses, together with and at the same time as the development for the rapid-transit service.

THE SIZE AND DISTRIBUTION OF PLAY-GROUNDS AND SIMILAR RECREATION FACILITIES IN AMERICAN CITIES

HENRY V. HUBBARD
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CITY Planning, as we now understand it, is an attempt to create a complete and satisfactory environment for the inhabitants of cities. It is only within recent times that cities have made any attempt at being perfect, complete organisms. Up to a short while ago they were, as Dr. Hegemann says, not places to *live* in, but places to *die* in. Few families of city dwellers lasted beyond the third generation. If the country had not supplied new recruits, the city would have perished. Obviously there was a lack of some element necessary for man's complete and permanent existence. Dr. Cabot, in his recent book, "What Men Live By," enumerates the necessities of man's existence as work, play, love and worship. The completely organized city should provide for all four of these requirements. There has certainly been no lack of work, although the way in which this work is to be done is still very much the concern of the city planner. Family life and religious life are of course also his concern, but not the subject of this discussion. Play, an absolute requirement for efficient and continued human existence, is, of the four essentials, the thing for which least municipal provision has been made in cities, and its lack was first felt and first provided for by those who tried to make our modern cities fit for their inhabitants.

Recreation is essentially mental or physical relief from

any exhausting activity or environment. In our modern cities this exhaustion has been, of course, mostly the result of work and of the confinement and repression incident to the existence of large bodies of men in wholly man-made surroundings. Men's recreations are different as men's work and environments are different; that is, each man's recreation will be relief from his own particular form of exhausting activity. In our crowded cities, however, all people are alike subject to certain exhausting forces: the tenseness of their struggle for a livelihood and the restriction of their man-made surroundings. It was natural, therefore, that the kind of recreation which was first seen to be needed was leisure, openness of surroundings, room to walk and to breathe and a chance to see trees and grass instead of bricks and mortar. Our first public recreation facilities were, therefore, parks.

But these parks, even when sufficient for this particular demand, did not meet all the requirements. As we have come more and more to see the sound sense of providing outdoor recreation facilities, and as cities have been more and more willing to withhold land from the more obvious utilities of business and residence for recreation purposes, cities have acquired — beside considerable areas of the countryside reserved for the use of the citizens — smaller parks for more intensive use, athletic fields, playgrounds, neighborhood centers, small resting places, swimming pools and other such specialized provisions for outdoor recreation. Some indoor recreations also have come to be carried on by the municipalities, such as public baths, gymnasiums, libraries, museums and social centers. Of course, there has been, too, commercial provision by private agents for any kind of recreation which could be made to yield profit to private investment. Theaters we have always had; moving pictures, penny arcades, amusement parks, dance halls, skating rinks, bowling alleys, pool rooms and so on will arise of themselves because they pay, and the task of the city planner will be not to bring them into

existence, but rather to regulate them and to counteract their effects where they are bad.

The complete city will contain provisions for all desirable forms of recreation; and practically all of the outdoor forms, as well as many of the indoor forms, will be provided by the municipality. Since much of the land which must be taken for these purposes is valuable, recreation facilities, like other facilities, must be as efficient as possible per unit of area. This efficiency will be secured by differentiation of function, by proper determination of size and interior arrangement and by proper spacing, throughout the city, of the various pieces of land devoted to recreation. This differentiation is, as we have seen, already well begun and will doubtless be more complete in the future as our knowledge grows.

We find, as we should expect, that when cities have first attacked the problem of outdoor public recreation they have attempted to provide for almost all kinds of needs on the same piece of ground. The large parks have been called upon to serve as resting places, as walking places, as playgrounds, as athletic fields and so on. As the cities have grown around these parks and the use of the parks has become more and more intensive, many of these specialized uses of the parks have been found to be incompatible with one another and with the primary use of the parks. Just how far it is wise to provide separate facilities within the large parks for specialized recreations is still in many cases an unsettled question, and often it is a question which can be settled only in the individual case by a knowledge of the individual circumstances. However, some general considerations can be stated which will hold true in practically every case.

The large park has properly a distinctive and very important purpose: namely, that of affording relief from urban conditions, relief not only by providing an opportunity for a man to do things which he cannot otherwise do in the city, but particularly for him to see and to think

things which the city excludes. The freedom of a park, the fact that in a park one may do many different things at his own will and is not forced to do any particular thing, the fact that the park is not obviously designed for one definite and recognized object, is the very essence of the value of a park; but it is also an element of great danger to a park when men come to seek for space for more definite and specialized recreation uses. A playground, for instance, is a thing which anyone can understand; its uses are obvious; its value is evident. To take a small portion of the area of a park for a playground would appear to be the cheapest way in which the city could get land for a playground; it seems to be good for the playground, it seems to be of little harm to the park. But the arguments which justify a community in doing this are just the arguments which are advanced for building schoolhouses in parks, for building libraries and museums in parks, for devoting, in a word, portions of the park to public uses not that of the park; and once granting these arguments, once entering upon this policy, there is no stopping place short of the entire destruction of the park as far as its peculiar recreation function is concerned. The quiet, the informality, the suggestion of natural growth, the lack of buildings in the park are what enable it to serve its purpose, a purpose which has come to be recognized universally as worthy of the expenditure of hundreds of thousands of dollars by almost all of our larger cities. The noisy play of children is absolutely desirable and necessary; the construction of schoolhouses, of museums, of effective public buildings is also a desirable and necessary thing; but the serving of these purposes should not be at the expense of the park. Moreover, the park is an inefficient location for the playground. A playground is a neighborhood utility. It draws only on its immediate surroundings for users; it should be in the midst of a populous district and not where half the land in its vicinity has no permanent inhabitants.

On the other hand, the children's playground does by its very nature belong near the school, as we shall see later more in detail, they both draw upon the same population and therefore normally would be in the same location, the local conditions governing the choice of a site for one apply also to the other, and in use each is helpful to the other.

At present the logic of circumstances has produced, for the most progressive of our cities, the following types of outdoor recreation facilities:

(1) The " reservation," a municipal holding of country land, perhaps in connection with city forests or city water supply, made accessible by roads, it may be, but not yet developed for intensive recreational use, and frequented mostly by picnic parties and others spending several hours at a time in the open.

(2) The large park, or " country park," designed to give, as far as is consistent with fairly intensive use, all the sense of freedom that the unspoiled country gives, and being the nearest thing to unspoiled country that most of the city dwellers can commonly take time to enjoy. It is fitted to receive large crowds and not to be destroyed by them, and indeed not to be crowded by them, for its main use is still to relieve a man from too close contact with his fellows.

(3) The small park, or " intown park," more accessible but less extensive, not pretending to a countrified appearance, but depending upon its design, its foliage and flowers, even upon architectural accessories at times; providing amusements which can be enjoyed by crowds and making the crowd a part of its design. " Commons," " public gardens," many of our larger so-called " squares," are of this type. Our " parkways," which serve as pleasure traffic connections for our large parks, have a local use in some cases like small parks.

(4) The playfield, for the active play of adults and young people over twelve, in games taking considerable

space, like baseball, football, tennis, track athletics, etc., under supervision.

(5) The boys' outdoor gymnasium, or restricted playfield, for very intensive use by boys over twelve, with apparatus, such as parallel bars, ladders, etc., and a supervisor.

(6) The girls' outdoor gymnasium, for intensive use by girls over twelve, with giant strides, swings, etc., and a supervisor.

(7) The children's playground, for boys and girls under twelve, with sand pits, baby hammocks, etc., and a woman teacher in charge.

(8) Special facilities depending upon local opportunities, such as swimming pools, wading pools, skating ponds, facilities for bathing in lake, river or ocean.

As to the best distribution and arrangement of all these facilities, we are still somewhat in the dark. In the light of what experience we have had, however, we believe the following combination of facilities to be efficient. The "park system" — outlying reservations, suburban large parks, radial and circumferential boulevards and parkways — is now an accepted thing. The relation of children's playgrounds to schools is obvious. The neighborhood recreation center — indoor gymnasium, meeting rooms, lockers, showers, etc., outdoor gymnasiums for both sexes of older children, small children's playground and perhaps wading pool, swimming pool and playfield — is now a recognized unit, a workable combination that meets a great need, when land enough can be obtained in one place to allow of combining these activities and profiting by their mutual benefit in upkeep and supervision. And some of us think that the best general arrangement of these recreation facilities throughout the city will prove to be locating these neighborhood centers each where it best serves its district, surrounding each at a suitable distance with resting places and little children's playgrounds, and relating these local provisions to the park and athletic field system by the boulevards and parkways.

If a city were sufficiently provided with these facilities, it might properly feel that in physical provision for outdoor recreation its people were well taken care of; but practically none of our large cities are so provided. The ideal differentiation and combination of recreation facilities is, probably, far in the future. For a long time to come we shall be obliged to allow boisterous play in parts of our country parks, construction of schools without sufficient playgrounds, playing of children in the streets made as safe as possible by temporary closing of the streets, but still tolerated as a temporary measure rather than accepted as the final solution of the problem.

On the broad, general laws governing the size and location of playgrounds and similar public outdoor recreation facilities, we are, I think, all agreed. We believe that every efficient community must set aside a portion of its area for these purposes; that the separate pieces of land which make up this total area devoted to recreation should be of such sizes as best to serve each its chosen function, and so located throughout the community as to be reasonably accessible to those for whose use each is designed. The size of a recreation area will, of course, depend, for one thing, upon its internal organization to fit its use — the size of a tennis court, the size of a baseball field, for instance, is a more or less definite thing, which has to be considered in fixing the boundaries of a playfield. But the great and important factor is the number of people who are properly to be expected to use the area; that is, the number of people who need the kind of recreation provided by this particular area and who can come to the recreation ground without having to travel too great a distance. In the ideal case, where you are not considering such topographical difficulties as the obstruction of canals, railroads or particularly crowded streets, the area served by a playground will be a circle having for its radius the distance which the people served will travel to get to the playground; and the distance between one playground

and another will, of course, be roughly twice this distance. When the playground appeals to a localized class, then the playground seeks the dwelling or working place of this class — a noontime playground would be near a factory, a colored people's playground in the colored district.

Having decided in a general way, by the consideration of these major factors, on the approximate place where the playground is to be located, the exact piece of ground to be chosen will be determined by the suitability of the site to the recreation purpose and by the consideration of cost. Suitability of site depends both on whether the site suits the playground (for instance, you do not of choice put a playground on the steep side of a hill) and on whether the playground suits the site (you do not put a playground next to a hospital).

The cost is the final deciding factor, which, wrongly understood, has wrecked more well-intentioned recreation schemes than anything else that can be named. It is in the consideration of this factor that the experience of the city planner will stand him in good stead. Cost is the measure of the desirability of a particular site for any purpose whatsoever for which men will pay money. It is the proof that other utilities besides that of recreation are bidding for this piece of land, as they are bidding for all the land in the city. The good city planner will naturally choose for his playgrounds, other things being equal, land which is most valuable when used as a playground, not land which would be most valuable if used, for instance, for a factory. But this consideration must not blind him to the larger fact that, unless the district to be served has a playground somewhere in the immediate vicinity, it is not fit to live in, and a very large price for a playground would be justified by this fact.

So far I have merely reviewed a field which is more or less familiar to us all. These general considerations are worth having. They may prevent us from going far wrong in meeting the actual problems, but if we mean to go ac-

curately right we must know more. We must know, in usable figures, the various factors which it is so easy to state in general terms. Just how much total playground area is needed for the average American city of a certain size and character? Of what sizes shall the separate playgrounds be? How far apart can they be? The only way to find this out is to determine what the circumstances actually are in our American cities, to record them for reference when they are satisfactory and to determine what is wrong when they are unsatisfactory. By a study of enough data of this kind we can eliminate the local variations and come to definite general conclusions which will enable the designers of our future playgrounds to move with more certainty and to make use of the experience which we are now so painfully acquiring.

It was the purpose of the investigation which prompted this paper to begin the general collation of these facts. The blank forms which you have before you were sent out to such people as seemed most likely to be informed on this subject in all the larger cities of Canada and the United States. The most salient fact demonstrated by the replies received was that only in a few cases had it been possible with the means at hand to accumulate all the data called for, and only in a few instances had the persons concerned with the playground movement had time and opportunity to familiarize themselves sufficiently with the conditions to make them willing to allow their opinions to be used as the basis of any general judgment. The following statements are, therefore, more the intelligent guesses of a few well-informed men working with little precise data than the unescapable result of the compilation of thousands of figures. However, even as they are, they may serve to show what knowledge we should have with more definiteness, and to suggest a way to go about acquiring this knowledge.

Question 1

What do you consider the maximum distance from each of the recreation areas beyond which people find it too hard to come?

A. Little Children's Playgrounds

A compilation of the answers to this question shows the distance most commonly given, as well as the rough average of all distances given, as *one-quarter of a mile.*

Plainly, the distance will be inversely proportional to the amount of difficulty and danger which lies between the child's house and the playground. Railroads, canals, etc., will almost completely bar the passage of little children, — that is, parents will not allow children to cross such obstacles alone, — and busy streets, especially if they have electric cars and considerable automobile traffic, will produce much the same effect. This is so common a difficulty that there is strong argument for having the playgrounds for children under six years old within each block. There would then be no streets for the children to cross, and mothers could go about their household duties and still be within call of the playground.

The playgrounds for children of school age, however, should without doubt be near the schools when this is possible. If the school buildings are ideally placed, they are accessible to all the children, each school — primary, grammar or high school — drawing all the children of appropriate age from its district, and its district lying contiguous on all sides to the districts of other schools of the same grade. One grammar school will then include in its district the districts of more than one primary school, the children as they grow older walking farther to school; and one high school similarly covers the districts of a number of grammar schools. So if the children's playgrounds properly serve the schools, they properly serve the city. And while

the playground gives the school light and air and accommodation for the children at recess, the school gives the playground shelter, toilet facilities, room for indoor games and sometimes a gymnasium and baths.

The spacing of the schools, therefore, might well be a guide to the spacing of playgrounds. But often in the actual case this school-spacing is far from ideal, and we must determine the proper spacing of the playgrounds directly by determining how far the children may reasonably be expected to come to them. Only one satisfactory way has been found of determining the " effective radius " of any playground, and that is to record the residence of all children attending a playground and discover what is the radius of the circle that will include the great majority, say 80 per cent, of the children's homes. This will give existing conditions accurately. There will still remain to be determined whether some greater attraction at the ground, some different traffic regulation, some further education of the people, perhaps some free public method of conveying children to playgrounds as they are now sometimes conveyed to schools, would not modify these results; but of course such modifying circumstances will apply to any data that we could obtain.

B. Playfields

In such of the answers to this question as seemed to be the results of original investigation, the average effective radius given was about *one-half a mile.*

As these recreation areas are used mostly by children who are able to go about without the company of older people, their effective radius is naturally longer than that of the little children's playgrounds. The limiting factor here seems to be inertia rather than danger or inconvenience. To most city children or young men a walk of much over half a mile needs a considerable attraction at the end. Commonly a person will seek some other amusement nearer

home rather than walk over half a mile to a playfield. And if he is willing to pay five cents and take a street car, he will probably ride, not to the playfield, but rather to a large park, a large athletic field, a bathing beach or some such more interesting place at a still greater distance. So the effective radius of the playfield seems not to be much increased by the use of the street cars. The boys' and girls' outdoor gymnasium or restricted playfield has apparently much the same effective radius as the " playfield."

C. Neighborhood Centers

The average effective radius given in the replies under this head is about *half a mile.* The neighborhood center is a group of a number of recreation facilities, appealing to different classes of people and drawing them from different distances. The little children's playground serves, as we have seen, an area of one-quarter of a mile radius, whereas the swimming pool will draw boys from a mile or more if there is no competing pool. It is probably best to space the neighborhood centers in relation to the circles of influence of the kinds of recreation carried on in the neighborhood center which have the longest effective radius, and to duplicate the short-radius recreation facilities — e. g., little children's playgrounds — spaced according to their own circles of influence, in a subsidiary ring around each recreation center.

D. School Playgrounds

School playgrounds will be of the different kinds already mentioned. The little children's playground should serve the primary schools; the boys' and girls' playgrounds and smaller playfields should serve the grammar schools; the larger playfields or athletic fields should serve the high schools. Of course this parallel is not absolute, but in general in the United States the school ages and the different types of playgrounds correspond in this way.

E. Grounds for Special Sports; for instance: swimming, skating, curling, lawn bowls, tennis, baseball and football on full-sized grounds.

The fact as to the effective radius of these special recreations is simply that a devotee of a special sport will go any reasonable distance to indulge in it. A five-cent fare in the street cars plus half a mile of walking would certainly not deter many of the enthusiasts.

There follow three interesting personal opinions bearing on the subject of effective radius of playgrounds:

Mr. Joseph Lee,
In the "Chautauquan," June, 1906, p. 354.

Effective radius for playground areas:

(1) For children in arms: ¼ mile.
(2) For children under 6, who can walk: ¼ mile, not crossing electric or railroad track.
(3) Children 6–12: ½ mile.
(4) Children 12–17 who cannot afford carfare: ¾ mile.
(5) Ball fields for men and boys: 1 mile plus five-cent carfare.

These are maximum radii.

Report of Parks and Playgrounds Association,
Inc., of City of New York, 1909, p. 4.

The experience here of block limitation is typical of many localities for playground work. A complete and accurate registration with addresses was kept of all members, and maps prepared with a dot for each child placed at its house. These maps, included in the appendix, show that children under twelve or thirteen, as a rule, do not go more than two blocks for a playground, that they are loath to cross avenues; and to form an adequate system of playgrounds, a small lot placed at distances not greater

than five blocks, between avenues, is the only effective plan. For older boys and girls, for athletic events, baseball or occasional trips, much longer distances may be given.

GEORGE A. BELLAMY,
Board of Trustees, The Hiram House, Cleveland, Ohio.

There are four kinds of playgrounds:

(1) For small children located so as to draw children from two ordinary city blocks any direction.

(2) Playgrounds for children who can go three or four blocks. Both of these playgrounds are usually open in the summer only and during good weather.

(3) Large playground of ten acres or more with a field house, such as the municipal centers in Chicago, drawing upon a population of half a mile radius or more.

(4) Large area varying from ten to a hundred or five hundred acres, which supply the need for the entire city's population for large municipal recreational activities.

QUESTION 2

Do racial or social barriers affect the use of playgrounds?

The consensus of opinion is this:

The playground is the best place to overcome racial and social prejudices — feats of strength and agility are recognized as worth while by all children, and there grows up in the playground, under proper supervision, a democracy of play, or at any rate an aristocracy of physical excellence but little influenced by race.

A playground in a racially or socially definite and homogeneous neighborhood takes its social standards from its users. Race segregation in this way is more or less automatic in many playgrounds, as, of course, is segregation according to wealth. In the case of *negroes*, the combined playground seems to be impossible in the South and elsewhere where this race prejudice is strong.

There follow two interesting and diverse opinions:

S. Dillon Mills,

Toronto Playground Association.

Influence of Racial and Social Differences. — All races are to be found in our schools and in the limited playgrounds attached to most of them; it is not advisable to encourage racial separation; we cannot build up a united nation in any place so well as in the playground. As to *social barriers,* the true democratic spirit does not recognize them; economic conditions will in any case cause a rough separation of wealth from poverty; the poor cannot live in the same quarters as the rich; if they knew more of each other it would be better for both; in Toronto this separation is so complete that the question does not arise as regards playgrounds.

Lafon Allen,

Former President Louisville Recreation League.

. . . We found it was out of the question to arrange successfully for the simultaneous use of the playground by children of both races (white and black). My recollection is that we finally settled upon a scheme of certain hours for white children and other hours for colored children. This was quite unsatisfactory, but it seemed the best thing that could be done. Even at that, a good many white parents would not permit their children to come to this playground because it was used by colored children.

Questions 3 and 4

3. (*a*) How much land *in toto* for the whole city do you consider requisite per capita to total population for the various recreation uses?

Little children's playgrounds.
Playfields.
Neighborhood centers.
School playgrounds.
Grounds for special sports.

(*b*) How much land *in toto* for the whole city do you consider requisite per capita for actual attendance?

4. What total area of separate playground do you consider necessary for the effective performance of its functions for each type, with due regard to first cost and operating expense?

Very few replies were received to fit the form in which these questions were asked. From the various fragmentary replies and the opinions returned, moreover, it is evident that, except for the playgrounds for smaller children, little definite collection of figures has been made, and most of the opinions are general impressions only.

The consensus of opinion as to children's playgrounds is that 30 square feet per child is a minimum space, and 75 square feet is none too much. This appears to be based on an assumption that about half of the children will be actually playing at one time, for such figures as are obtained as to maximum crowding allowable give about 300 children per acre as the "point of saturation," and this is over 140 square feet per child.

Several opinions follow:

Francis R. North,
Playground and Recreation Association of America.

Fifty to 75 square feet per child is a reasonable minimum on school playfields. Three hundred children on acre when children are playing at once.

C. Ward Crampton,
Director of Physical Training, Department of Education, New York City.

The minimum allowance of space per school child should be 30 square feet. The space will also take care of the adolescent situation, if one-third of it is enclosed and all of it provided with artificial lights. Sixty per cent of this space should be attached to schools which should be used

as their neighborhood centres; the balance obtained by the use of parks. This is the absolute minimum. In addition, in all centers of population of 10,000 and over, there should be a space of 400 × 600 feet for use as an athletic field, and for occasional civic demonstrations and pageants. With each 50,000 population, this should be duplicated. In addition to the provision of this space, there should be provided seats for at least 1,000, and facilities of the type used by the Department of Education, New York City, for its athletic fields.

British Institute of Social Service.

III. That where provision is made for games:

(*a*) Each undivided playground for 200 children and upwards should provide:

(1) 20 square feet for each older child.

(2) 16 square feet for each infant.

(*b*) Each undivided playground for less than 200 children should provide 2,000 square feet, together with:

(1) 10 square feet for each older child.

(2) 6 square feet for each infant.

IV. That where no other provision is made for games:

(*a*) Each undivided playground for 200 children and upwards should provide:

(1) 30 square feet for each older child.

(2) 16 square feet for each infant.

(*b*) Each undivided playground for less than 200 children should provide 2,000 square feet, together with:

(1) 20 square feet for each older child.

(2) 6 square feet for each infant.

V. That

(*a*) Where a site is expensive (regard being had to the price of the land and the resources of the authority), the Board may accept a playground below the measurements specified in Section IV (*a*) and (*b*) above.

(*b*) The precise degree of reduction from this standard

shall be decided on the merits of each case, but in no case shall the reduction bring the playground below the measurements specified in Section III (*a*) and (*b*).

S. Dillon Mills,
Toronto Playgrounds Association.

Extent of Ground. — About one *square* acre for 150 children is the minimum for effective play. But calculations of this kind are very unreliable; the temperament, nationality and previous habits of the children form factors of unknown quantities and of great importance in the matter: 300 children of the slum type or of phlegmatic temperament could play quite acceptably in a space in which 100 active youngsters would be hopelessly crowded. The child population of every district varies from year to year; actual playground attendance even more so: it is at best a very uncertain quantity, one respecting which no means has yet been devised for obtaining figures with accuracy. Two acres appears to be the smallest admissible in an average district of one-quarter of a mile radius with house rents averaging $25 per month, and the reason that this space is sufficient in any instance arises from the fact that not more than about one-fifth of the school population will be found in the ground at any one time, unless there is some special attraction, such as annual games, etc. Three acres would be much better, for it must be remembered that children are not always engaged in active play; they desire also rest, and cannot have this unless they have room to retire from the boisterous crowd. This is one reason why in Toronto we find so many children in the streets near the open playground. Space should also be available for garden plots and for shade trees. The size of recreation grounds for older persons does not come within the scope of these notes.

AN OPINION FROM MINNEAPOLIS.

There should be one acre of little children's playground for each 15,000 population; one acre devoted to the uses of a neighborhood center for every 5,000; and one acre for grounds for special sports (baseball, football and athletics) for each 10,000 of population.

A little children's playground should be at least 1 acre in area, a playfield from 2 to 10 acres, a neighborhood center from 2 to 4 acres, a ground for special sports from 2 to 10 acres.

QUESTION 5

To what extent do you believe it expedient and wise to use and to depend upon using for play purposes land primarily devoted to other purposes, such as unoccupied land, designated streets, etc.?

The opinions on this topic were generally in accord, and can be summarized thus:

Unoccupied ground may well be used for children's play if no better facilities can be obtained. Successful intensive play needs apparatus and superintendence, however, and neither can readily be provided for an uncertain and temporary opportunity. The question really centers about the use of streets for play. If a city is well planned, so that heavy and fast traffic keep to their own main thoroughfares, leaving the residential side streets comparatively free; and if these side streets have the minimum of road surface and the maximum of turf or sidewalk according to the density of population; and if perhaps, in addition, the streets are barred to traffic during certain hours, then play in the streets may be more or less successful. But there is no denying the general fact that play in areas specially designed for play is better.

Several opinions follow:

S. Dillon Mills,
Toronto Playground Association.

Use of Streets as Playgrounds. — Where nothing better can be done this is excusable, but there are many objections. The city becomes liable to claims for damages to house property, etc. The street being a long, narrow strip, renders supervision very difficult; the absence of supervision means simply leaving things as they are: we are looking for progress. The stopping of traffic on any one street during play hours, and the assembling of the children from several adjacent streets on it, are serious annoyances to the residents, even with supervision, and will be likely to cause depreciation in property values on that street, unless in actual slum areas, where annoyance caused to tenants cuts a very small figure because they cannot help themselves. There is just one bright feature about the street playground, and that is — that if the supervisors are of the right type, their street work will open to them many opportunities for doing a splendid social service.

George A. Bellamy,
Board of Trustees, The Hiram House, Cleveland, Ohio.

Where land is expensive, I think it is quite possible with good results to depend upon the use of the streets where traffic is limited at certain hours of the day for play purposes. Policemen on their beat could very well manage the opening up of certain streets for certain games, eliminating the danger to life. The city could well afford to pay an instructor for certain hours to control games on the street set aside for such purposes. Of course the street does not make as desirable a place to play as the ordinary ground, but it is better that it be regulated and be made lawful for the children to use the streets at certain hours than to have promiscuous play undirected and contrary to law, as it is in some cities.

FRANCIS R. NORTH,
Playground and Recreation Association of America.

I do not think that the streets ought to be depended upon, except as a temporary measure. They can be closed in certain periods of the day and used for play. The increased use of automobiles is rapidly making ordinary use of streets less and less practicable.

To return now to the questions with which we started our investigation:

Just how much total playground area is needed for the average American city of a certain size and character? Of what sizes shall the separate playgrounds be? How far apart shall they be?

Our conclusion is apparently this: we have not yet collected data enough to enable us to answer these questions, but we do know what data we need and how to get it.

Let us turn to the people in charge of the various recreation facilities, the teachers in the little children's playground, the instructors in the boys' and girls' outdoor gymnasia, those in charge of the swimming pools, the playfields, the larger athletic fields. Let each one of these people record accurately, for his own playground (and for each activity in his playground, if these activities are assigned separate spaces) the following five points:

(1) How large is the area of useful playing surface?

(2) Just what activities are carried on upon it?

(3) How many people does it take, using the ground at one time, to fill the playground to its maximum efficient capacity?

(4) What is the age, sex, race and occupation of each person enjoying each recreation?

(5) From what distance does each person come to the playground?

These data can all be obtained and recorded by those locally interested, without any special trained knowledge of statistics.

Further, we should have from each city, for every residential area tributary to a playground, the total population and its character, and the total juvenile population. These facts could be obtained in part from the city census, in part from the school census, and completed with sufficient accuracy by sample counts or "soundings" in each area treated.

By a comparison of the number of people actually attending a certain playground with the number of people within its tributary area for whom the playground is designed, the proportion of predictable attendance to possible attendance can be obtained; and the collation of these figures from many playgrounds would give us a generally applicable ratio.

If a definite form in which all these data could be recorded was used in every case, the information relating to the same kind of recreation activity throughout the country could then be compiled by some central authority. We should then know (as far as it is possible to know) the three main considerations which determine the size and spacing of playgrounds and other similar recreation facilities: (1) what, under present conditions, is the minimum efficient area of ground, per person present, for each of our recreation facilities; (2) from what size of surrounding residential area people will come to each recreation facility; and (3) how many people will actually come to each kind of recreation area from a surrounding residential area of a certain character and number of inhabitants.

To apply this knowledge in designing a new city recreation system, or improving an old one, we should first determine the various characters and densities of population throughout the city, and tentatively locate on the map the various recreation facilities that are to serve the population, having regard to the effective radius of each facility. We should then determine how many people, of an age and sex to use each particular playground under discussion, live within its effective radius from its proposed

site. Now, by applying our ratio of actual users to possible users, we should obtain the total number of persons to be reasonably expected as actual users of each playground; and then, by employing our figures as to the necessary number of square feet of space per person attending, we should have as definite an idea as it is possible to get of the proper size of each playground.

A careful restudy in the light of what we should then know of the size and effective radius of each playground would give us a more or less ideal arrangement of recreation facilities for our city.

And then would come the practical work without which the ideal scheme is worthless: determining what can be done with the resources in hand, with the various and overlapping departments of the municipal government, with the thousand conflicting private interests, to bring the scheme to a workable realization, to make the city provide for its people what the city has taken away from them — one of the essentials of complete living.

Discussion

Mr. George E. Hooker, *Chicago:*

Perhaps I may say that one of the reasons why I have had so much interest in listening to this paper is because of its relation to a little enterprise which we are putting forward in Chicago now. The City Club there is just about to announce a competition for a plan for a neighborhood center.

The idea of the neighborhood center, according to that program which has been prepared in conjunction with the Illinois Chapter of the American Institute of Architects, is somewhat wider than Professor Hubbard indicates in using the term "Neighborhood Center." It is the neighborhood center in the sense of the cultural and possibly also the commercial center of its entire neighborhood, as a means or a factor in the federal organization of a city. The old parish system has disappeared very largely even

from Great Britain; and we are feeling about today just as Professor Hubbard's investigation has been feeling about for some suggestion as to what the local unit in the larger organization of the great modern community of the medium-sized community may be. These investigations have given us some suggestions as to what the local unit may be or should be at least in supplying the function of recreation. There are other functions to provide for also. But this study is one of very vital moment in working out that idea, and I have had, curiously enough, inquiries from three or four quite independent sources within the last two or three months that indicated that investigations and searches along some general line are going on in different quarters. In my judgment this is of vital moment in its relation to city planning, because it follows out a theory of city organization for the objects of community life. That is one thing concerning which Chicago does not feel apologetic.

EDWARD H. BENNETT, *Chicago:*

I regret that I have not as thorough an analysis of Mr. Hubbard's excellent paper as I might have had if it had reached me a little earlier. I received it only a few days before the Conference. I am not sure that it will be profitable, however, in any case, to discuss the paper in detail at this time. It seems to me that Mr. Hubbard's paper is a very large contribution to what has already been spoken of as the City Planning Program. It is the development of another line of study, or the development of a firmer basis for our study, and conclusion in regard to city planning. Mr. Hubbard has very carefully gone into all the details of placing parks, and an analysis of their various functions in the city planning. He says that his data is incomplete. That is unquestionably true, and no doubt owing to the lack of time for collecting data. It occurs to me to suggest the possibility of the Conference taking up this work of investigation and completing it in the most thorough

way, not only for playground parks, or parks in general, but other subjects as they may come along. The Conference, as I understand it, is for such a purpose rather than the purpose of the design of city plans, and for the preparation of the data which is to be the basis of the design in city planning.

The Playground System, as outlined in Mr. Hubbard's paper, seems to me generally acceptable, but no system can be worked out independently of the other bases of city planning. The city plan must be comprehensive and must involve all the elements, transportation, street system, parks, public buildings and every phase that goes to make up the city life. That is particularly true in regard to the future extension of the various districts and of the increase in population of cities and the conditions varying in every city and even in every locality.

In other words, while it is not possible or does not seem possible to lay down any typical scheme for a system of playground parks, certain principles can be stated and the working out of any scheme must be done in accordance with the whole city plan.

I was very happy to hear Mr. Adams this morning say the same thing with regard to transportation. It is too easily lost sight of that these elements are of importance chiefly as they relate the one to the other. The variations in real-estate values in a city make the question of location of parks largely one of economics. We do not know ten years from date what property will be within a radius of ten miles or five miles in a growing city. Conditions are changing so rapidly that industrial areas penetrate residential areas in such a way that residential values are destroyed. The whole thing is in flux. Now the question arises, Is it possible to forecast the conditions of a city ten or twenty years from any date? I believe it is, and as a city planner I am bending all my efforts and those of my office to producing a clearer, stronger and better basis for the city plan along those lines. A plan must be flexible,

undoubtedly, but that means that there must be a city-planning body who will watch the growth of the city, and if it is a question of parks or playgrounds that it shall keep in touch constantly with the authorities on such matters.

We attempted to lay out a plan for a playground system in Brooklyn, and a great deal of work has been done by the local associations in Greater New York on playgrounds. Perhaps more intensive study has been given it there than anywhere else, in spite of the fact that we have produced playground centers in Chicago of a character differing from and perhaps superior to the New York center. They faced the difficulties we faced when we attempted to make this study in Brooklyn, less occupied by population than Manhattan except for its very densely built sections. We found an inadequacy of the total area for the playground parks necessary for the population, and in order to make any kind of a program we found it necessary to eliminate from our estimates first of all those beyond the age of thirty, and finally the gentler sex. We simply worked out a program, for the sake of economy, based on the playground necessity of boys alone, or what I might call children and boys. In thickly populated districts of Brooklyn there is hardly room to supply the necessary area without squeezing out the necessary residential areas and business areas, and that broad fact is worth stating. The congestion is tremendous. This means that a very intensive use has to be made of their playgrounds, and for that reason I think we are indebted to Mr. Hubbard for his investigation of the maximum and minimum requirements for the various kinds of recreation.

Now a word as to the Chicago system. They are both recreational — physically and socially. I will come to that later. On reading the latest report of the South Park Board, I was very interested to know, showing how barely the figures given in this Brooklyn report cover the necessities of such communities, that practically 50 per cent within half a mile of the playground frequent these play-

grounds, and also to know that 28½ per cent of delinquency was eliminated in the same area.

I come now to the leading consideration in these recreation centers, which it seems to me is its social aspects. Mr. Hubbard has already referred to the community center, — the community life which it is hoped to develop in this scheme which is being promoted in Chicago. That aspect is brought out very clearly by Mr. John Collier in the last meeting of the American Academy of Political and Social Sciences. He speaks, first of all, of the waste of the public property. He speaks of the idle school property during summer; of the school playgrounds; of the public buildings, such as armories, and finally refers to the necessity for the development of a social program.

The deductions I have made from it were as follows: That it was necessary to increase the school playgrounds to a size similar to the playground parks in use; to place the schools wherever such playgrounds cannot be had, near to and fronting on playground parks; to develop the use of the school halls for public recreation and social use, and to front, as much as possible, the local buildings of local center use, such as armories, libraries and baths, around these playground parks; in short, to create a thoroughgoing neighborhood center.

I wish that I had time to take that article of Mr. Collier's and quote from it, but I have not, and I would recommend all who are here to read it. He points out that the conditions of work have changed tremendously and that the conditions of recreation have practically taken the old conditions of work, and that the problem of today is the development of recreation facilities, but the avoidance of recreation facilities which divide the family as a unit. He says, from the time the boy or girl has left school, he has left the influence both of the school and his family, and it is his belief that these neighborhood centers will build up a system which will tend to correct that condition.

It is not fair to leave this subject without speaking of

the amusement parks which seem to me to offer those very facilities which it is desirable that we should develop in our neighborhood centers. It is possible for a family to find their recreation in the amusement parks so as to take them all there. Now the question whether these things can be municipally run or whether they should be encouraged as private enterprises is one which might easily be profitably discussed.

In dealing with this question of recreation it must be recognized that the gradations of the perceptions and sensibility or the education of the various classes of the people govern the type of recreation which each one seeks. Those forms of recreation which present the more simple or reserved qualities are attractive to the cultured mind and are to be found in the recreation parks. The other forms appeal to other classes. Undoubtedly these things overlap and it would be impossible to make any specific definition, but that there is a preference for certain forms of amusement by certain classes of people is obvious. Now there is a large class of people in all civilizations whose sensibilities are developed to a higher degree than the means at their disposal can supply.

In closing, I want to refer to this matter. It seems to me of the utmost importance, and it leads us to perhaps the most vital consideration in regard to recreation, e. g., the forest reserve. It is to this class just mentioned that the forest reserve really appeals, the quiet, the absolute freedom from artificiality of any kind whatsoever. It is just to that class which cannot afford the facilities available to the wealthy and to which neither the amusement park nor the local park really reaches we should cater, and also it is the encouragement of the enjoyment of such facilities which we should foster in all classes.

Mr. John P. Fox, *New York City:*

The only point I want to emphasize in connection with this playground movement is one I think we must be very

careful not to lose sight of, and that is the importance of the yard for each family. I think we are a little in danger, in planning our parks and playgrounds, to forget that every family with children ought to have a yard for the children to play in. Now that may seem an impossible ideal, and yet I think it is an ideal we ought to work for as city planners, at least in planning new areas. My own standard for housing is the thing just mentioned, viz., that every family with children ought to have a yard of their own.

Within the last month or two, I have been studying the question of housing in Boston. Boston has been building up lately, as you may know, with almost nothing but three-flat houses. Now such houses are not necessary from the point of view of the intensive use of the land, because the three-flat houses in Boston take just as much land as the single houses in Philadelphia. But it is the habit of the builders and the real-estate men, unfortunately, to construct in that way. I think that as city planners we must try to counteract this tenement-house construction and use the argument that every family ought to have a yard.

When we consider this matter of playgrounds theoretically, we are apt to think a yard is not necessary, that a playground in each block will do just as well. But when you have children of your own you find that sometimes you cannot let them play indiscriminately with the children of the neighborhood. I lived in a beautiful garden suburb a few years ago, in one of our large cities, and when we first moved there my children began to play with the other children. But I very soon found I could not have my children play with the others because they were not of the right character. And then, because of our custom of not having any fences, I could hardly keep my children at home at all.

So there is a practical problem which many of us have to meet, of how to keep our own children playing in their proper place; and on account of this problem, I want to urge you, in considering this playground matter, not to

forget the yard. If you will notice the plans of Philadelphia houses, you will find that, even with the smallest house, built on 45-foot lots, they have always preserved a little space for a yard in the rear, very small, perhaps, but with a fence. And so the Philadelphia children have a place when they are young where they can play by themselves, and where the mother can know that they are not mixing with other children when it is unnecessary and perhaps undesirable.

MR. HOOKER:

The point raised by Mr. Fox has always seemed to me an important one, as to what we should have as our ideal. I think it is one of our United States professors who said that the chief business of the race is to bring up good children. I think we all agree with that as one of the chief ends of life, even though some of us may not engage in that occupation. But we ought to have play places attached to the family abode. Is it satisfactory to have play places where children from different families play together? Must we have them both? Is one preferable to the other? Possibly Professor Hubbard will say a word on that in response to the discussion.

Another matter which seems to me of vital importance is whether these playgrounds should be developed in connection with school properties; whether we have been too extravagant in Chicago; whether we have started on a plan which cannot be carried out. We have no indication so far that we cannot carry it out. Everybody is so enthusiastic and the praises which we get are such, that the real estate owner has not objected thus far. We hope he will not. Still the question has been raised whether it is an extravagant method to have two plants, each of which is unoccupied for a considerable part of the waking hours of the people.

Mr. George B. Ford, *New York City:*

As a corroboration of the facts which Mr. Hubbard brought out in his extremely able paper, which is a notable contribution to the subject, I want to show you this map, which is one of a series made for the City Planning Commission of Newark, showing the distribution of the homes of children who are using a public playground at the same time.

It was found, by taking the names and addresses of the boys and girls separately and for different ages, who were using the playground at any time, that almost all of them came from within one-quarter of a mile. And the same was true for other playgrounds. We found also that for the younger children under ten or twelve years of age the radius was within one-eighth of a mile. That bears out again the idea which Mr. Hubbard brought out of the desirability, especially for younger children in crowded districts, of having a space within the block, if possible, for playground use. This brings us to a question of laying out street and block units, which I believe is most pertinent. Much of the work of city planning is laying out suburban residential areas. The question comes up of how to lay out such areas so that they will be useful not only for residence but for recreation as well. By making lots which are not too deep and streets which are not too wide and then providing, in the center of the block or elsewhere, a space which may be used at first, when the houses are only a few to the acre, in part for recreation and in part for allotment gardens or something of that sort, the block as a whole is being used to good advantage. Then we must consider the possibility of convertibility as the city grows. As the population becomes more congested and the houses are built more thickly within the block, more space is necessary in the center for recreation use and less becomes available for allotment gardens, until we come to the point where the city grows to the tenement stage, in which case we can build a row of tenements completely around the edge of the

block, leaving a center open for recreation, as they have done in Germany. Finally we come to the case of a very dense population when the tenements cover, say, up to 70 per cent of the block and where very little space will be available on the ground for recreational use. There we have the option of either going to the roofs of the tenements and developing flat roofs for recreation spaces, as has been done in many cases, or taking another scheme which has been suggested in congested areas in New York, of building multiple story playgrounds, playgrounds five and six stories high, consisting of an open cage or framework, built on a corner of a block, with concrete floors which are exposed to the air and sunlight on all sides. Such a structure can be easily flushed and cleaned, and in winter glass can be put along the windward side. A provision can be made on the ground story or basement for toilet facilities. The stories can be used for different ages and sexes of the children. In congested areas along the water front piers can be found, the second story of which may be used for ordinary playground purposes.

As the city grows a residential area often changes to a manufacturing or business area, and deeper lots are necessary. It is possible to take the space in the middle of the block, which has been used for allotment gardens and playgrounds, and add it to the back of the original shallow lots to secure lots of a sufficient depth for business uses. This method allows conversion into a number of other possible uses, depending on the nature of the development in the section under consideration.

Mr. John Ihlder, *New York City:*

At the beginning of his paper Mr. Hubbard said that family life is the concern of the city planner but not the subject of this discussion. This self-limitation, it seems to me, has proved a very serious defect in his otherwise most stimulating and instructive discussion of a subject which cannot be adequately presented without conscious

consideration of family life and the effect upon it of playgrounds and other recreation facilities.

Playgrounds and some of the other more important recreation facilities owe much of their value to the fact that they offer opportunity for the development of a normal, wholesome neighborhood life. A neighborhood is composed not of a mass of individuals who can be roughly classified by age and sex, but of families. The interests of members of the two sexes and of different ages are, or should be, so interwoven that they cannot be arbitrarily differentiated without serious social consequences. We must begin with the family as the unit and then provide separately for the different members of the family only in-so-far as it is certain that they require separate provision. When this is not certain, stop, for the family is far more important than the sum total of its individual members.

There is always a danger that those whose eyes are fixed upon some particular object may fail to see others of at least equal importance, and in their laudable desire to secure their particular object work injury to the others. From this danger few of us are free. It is of vital importance that boys and girls should be thrown much in each others' company if the relations between the sexes are to be clean and wholesome. But this cannot be done if children are to associate only in large droves even though under the supervision of the most efficient paid official. Then the only safety is in separating the sexes. It can be done, however, if a small number of children, brothers and sisters, whose parents are well acquainted with each other, form the play group. Then the voluntary moral restraints develop, the desire to earn the respect and liking of their playmates' parents, recognition of the principle that one should treat his playmates' sister or brother as he wishes his own to be treated. The segregation of soldiers in barracks or of men in college produces well-known moral effects. The segregation of young boys and girls produces analogous effects.

But we must go further back and further forward. Mr. Hubbard in speaking of the maximum distance from which playgrounds will draw their attendance speaks of "children in arms" and "little children," and tells of the impediment of traffic streets and car lines. Is he not tacitly accepting the worst conditions as usual, and using generalities to picture the situation in one or two of our largest and most congested cities or the worst parts of a larger number of smaller cities? On Manhattan Island, in the downtown areas of Boston, Chicago, and Cincinnati, it is a case of public playgrounds for "children in arms" and for "small children," or of no playgrounds at all. But it should be made clear that this alternative is not of general application. Over the greater part of the great majority of our American and Canadian cities we are not forced to accept it, much less the pitiful expedient of roof playgrounds or those on several decks, which may provide air and a passing sunbeam, but which are "grounds" only by courtesy.

In the happier cities, and even in the happier parts of the most unhappy cities, it is still possible to keep the best possible playground, the one that entails no expense upon the public treasury for purchase or maintenance or supervision, a yard surrounding the single-family house. The public playground for "children in arms" and for "children up to six years old," means that the mother or some other older member of the family must give up her other duties and devote herself for a considerable part of the day to the single task of watching the baby. Conversely, it means that as some time must be given to other duties the child has to stay indoors, when, if a private yard were available, it might be out of doors nearly all day long and still be under the eye of a mother, who at the same time is doing her other work. Those of you who visited the Toronto Housing Company dwellings yesterday saw a good illustration of this. Behind one of the single-family houses was a little sheltered back yard in which were a baby and

two older children of four or five years, while the mother sat just inside the open window. There could be no comparison between that private playground and the best public playground ever dreamed of.

Even for the older children, those from six to twelve years of age, there are advantages in favor of the home playground in addition to the moral advantages I have already mentioned. The public playground is, and probably must continue to be, in large measure a ready-made thing. Swings and teeters and bars are all provided. These might be adequate if the child were simply an animal needing exercise and fresh air. But he is a lot more than that. He, for instance, is an inventive genius; he has in him the spirit of adventure. He gets more joy in making a swing than in using it; he gets more whole-souled satisfaction in digging a robber cave or in building a shack of odds and ends of lumber than in using the best equipped field house ever erected. And there are those who believe that he gets more benefit as well. Moreover, the child is imitative; he gets joy, and perhaps no inconsiderable mental and moral development, from associating with grown people, imitating their work and their play. From all this children are shut out when they are sent to public playgrounds and segregated according to age and sex.

Even with the older people, boys and girls in their teens, grown men and women, there is a real danger in too much segregation. Of course segregation cannot be carried to a logical conclusion. Sex attraction alone is too strong for that. But we can do a great deal of harm by attempting it. So is it not better to realize that the wholesome, natural, normal thing is for us to work and play together so far as conditions permit, differentiating only when it is certain that differentiation is advantageous from every point of view, not merely easier from the point of view of the public official?

This does not mean that the neighborhood playground and recreation center and the city park are not of great

value. They are. To insist upon the importance of the family is not to decry the importance of neighborliness, of the stimulus and refreshment which come from associating occasionally with mere acquaintances and with strangers. It is simply a protest against ignoring the foundation in our admiration for the superstructure. There is a temptation to confine our admiration to that which is large and spectacular. But it is the smaller, more intimate things that really make our lives and our characters. The family group with its intimate relations has a value for which there is no substitute. The small group of families, all of whose members know each other well, permits of a freedom that is impossible in larger groups where acquaintance must be more superficial. Here youth and age have opportunity to learn respect and forbearance and understanding, to their mutual advantage. Beyond these, but not in place of them, should be the larger groups. There should be fields for the older children to play organized games, there should be space for neighborhood meetings, for great civic or holiday gatherings.

But enthusiasm for these should not blind us to the fact that the best social center is a home which will provide not only for the daily living of adults and children but also for the entertainment of neighbors and visitors; that the best playground is the home yard where the children are safe and where they can exercise their ingenuity and their love for adventure without keeping a wary eye on the policeman or the supervisor. The best recreation is that which brings all ages and both sexes together in common interests, indoors and out, instead of that which tends to separate them until the boy looks upon the man as an enemy and the man grows old before his time because he has lost touch with the youth of the world.

PRESIDENT OLMSTED:

I have nothing to contribute to this discussion, except one fact of some little interest as indicating a tendency.

Within a year or two I had a discussion with the members of the South Park Commission in Chicago and their superintendent upon this very point the chairman has just referred to. I urged upon them at that time the economy and advantages of bringing about a closer relation between the school equipment of the city and the admirable provisions which the South Park Commissioners have been making for recreation in the small parks and playgrounds. They were inclined to agree with me as to the advantages to be gained by such closer physical relationship. The more intensive and continuous use of the buildings and equipment is of the greatest advantage; but the obstacle there, which they felt to be insuperable as far as they were concerned at the present time, lay in the administrative difficulties; in the entire separation of the administrative management of the parks from that of the schools and from the other organizations which are providing for various needs of each neighborhood.

This is an illustration of the general failure to recognize the essential unity of each of the real social units, the neighborhood units. We have in our cities a considerable number of organizations each of which provides more or less adequately for a distinct social need in every one of the large number of neighborhoods, but does so quite independently of the work of the other organizations in the same neighborhoods.

Mr. John W. Mawson, *Vancouver, B. C.:*

It seems to me that Professor Hubbard has crystallized here the idea of the Western cities at any rate; I can speak with more certainty for them: these are the ideas that they have been reaching out for during the last five or six years. They have all done a certain amount of investigation work, but with no coördination about it. Every city has had a different method and they have all arrived at different results. It seems to me that if this paper could be sent to the playground authorities of the city, with the

request that they should adopt some uniform system, we would arrive at better results.

LIEUTENANT-COLONEL ANDERSON, *Ottawa:*

I may say that this question of playground accommodation has engaged the attention of the school boards of the city of Ottawa, of which I have been a member for some years. We find that up to the time that the boys feel the necessity for congregating together, they are better controlled by the system suggested by one gentleman here, of having separate yards.

We also find it is impossible to have block playgrounds, for the simple reason that the blocks have already been laid out to such an extent that the evil, if it is an evil, cannot be altered now.

I should like, if it were possible, for Mr. Hubbard's conclusions to be spread throughout the length and breadth of Canada as theoretical propositions for the development of playgrounds; but I would like, if possible, that Mr. Hubbard should give us some suggestion for curing the difficulty of meeting changing conditions. Rapid changes in conditions even in a small city like Ottawa are found. A school may require a certain playground today, and in five years' time that school is practically abandoned and we have to go further afield and change our whole organization. Now how is that to be got over? If Mr. Hubbard can give us a suggestion for that, it will be a very valuable addition to his paper.

We have tried to add a school playground to every school building in the city, and I think that that is a principle that should be adhered to. We find it of very great advantage in every way. Unfortunately, in our school system, where the Roman Catholics have one system and the rest of the community another, it is very difficult to get general playgrounds attached to the schools, but we are doing the best we can by making them in connection with the schools and also encouraging their use after school

hours, and I think that that suggestion which was made by one of the speakers here is a very valuable addition to the subject.

PROFESSOR C. F. WARD, *Calgary, Alta.:*

I was very interested in the remarks on the community center. It has been brought home to me during this Conference the great difference that there is between the East and West and how little one knows of the other. In Calgary they have already worked out and begun to operate this community center idea. You know that the Western cities take for their school purposes usually a whole city block, which means that they have a large area of waste ground, as a rule, and I would say that in a lot of the Western cities they look more like prison yards than school yards. But they have decided in Calgary at any rate to carry out this idea of intensive use of the school yards. That is to say, that they are not only going to be devoted to the school children, but they are planned (and I think you will find that incorporated on one of the Calgary plans) for the use of the whole community after the school has closed. It takes in the recreational both in the physical sense and in the mental sense. They have a library for the use of the community as well as for the school, and playgrounds for children and grownups, and they also make provision for the climatic conditions in which the people have to live; that is to say, they have provision both inside and outside for recreation. They have in connection with their center, a picture show, or whatever you would call it, a cinema house for the purpose of exhibiting films of educational purpose.

MR. A. B. POND, *Chicago:*

The Chicago situation in regard to playgrounds illustrates typically the drift which usually accompanies the growth of an American community. When the matter of playgrounds was first broached to the school authorities

some years ago two objections were raised. One, that playgrounds and recreation was not a function of the community, and that the schools had nothing whatever to do with playgrounds. Another objection raised was that the schools had no funds available for the purpose. And it was while the school boards were still occupying this point of view for the most part that the South Park Commission took up the matter of public playgrounds.

On the financial side the situation was this: that the schools were always limited to meeting the necessary growth of the system by their budget, and the park had separate taxing authorities and did not meet the growth through the process that had to be gone through with the school budget, in consequence of which the park could raise money for playgrounds when the schools could not, and it was this situation which led to the separation of function where, as Mr. Hooker has well said, there might well have been, and should still be ultimately, identity of function.

REMARKS AT THE CLOSING DINNER

REMARKS AT THE CLOSING DINNER

HON. CLIFFORD SIFTON, *Toastmaster*

Chairman Commission of Conservation of Canada

WHEN the Conference opened it devolved upon me to say a few words of welcome; and it now devolves upon me after the Conference has closed to say a few words by way of appreciation and gratification that we have you here as our guests, and that your Conference has been so extremely satisfactory and useful.

Of course one of the main objects to be attained in connection with a Conference of this kind is to secure a due measure of publicity. While it is an excellent thing that we have all these stores of knowledge ourselves, it is a still more excellent thing that we should get them communicated to the general body of the public, so that they may be put to practical use. I think under all the circumstances that we have reason to congratulate ourselves that our friends of the Press have treated us as liberally as they have.

As a matter of fact, this Conference has been competing for newspaper space under very great disadvantages. The Conference has been held at a time when His Royal Highness the Governor General, a very popular prince, is making one of his visits to Toronto. The doings of His Royal Highness take up a good deal of space in the newspapers. Then you have been holding your Conference while the spring races have been going on at the Woodbine, which is the most important sporting and social event which the good city of Toronto sees during the twelve months of the year. Then there is that incipient rebellion in Ulster, Home Rule; watchful intervention in Mexico and all that sort of thing has been going on, and all these things have been

competing for space in the newspapers during the last week. And so I seriously think that our friends of the Press have treated us very liberally and considerately in giving us the good and full reports of our proceedings which they have given.

For myself, the principal desire that I had in connection with this Conference was first of all that we in Canada should become better acquainted with the ideas of our friends from the United States upon these subjects; that we should get into touch with what you are doing and inoculate ourselves with your ideas; and then I wanted to see that those ideas which you expressed were so fully reported in the Press that they would get to our public, so that the public of Canada would become impressed with the fact that Town Planning is not an expensive fad, a new way of spending money, but is an economic proposition, a proposition to save money and to get good value for money. That is the chief idea that I want to see the people of Canada get from this Conference.

I have the honor of being an officer of what we call our Commission of Conservation, and the germ idea of that Commission is to save money or to save money's worth; that is, to save property, to save resources, to preserve things that have value from being destroyed. And that is why we take an interest in the proceedings of the Town Planning Conference; that is why we want to see town-planning ideas spread. But I want to see it spread only if it is founded upon a sound economic idea. If it is another way of wasting public money (God knows there are enough of them now), if it is another way of wasting public money, then it does not appeal to me. But if it can be shown that this idea can be worked out on economic principles, so that returns will be made for the money that is invested—and let me tell you that is the only way it will ever succeed—it is the only way it will ever make its way; when that is accomplished and we get that idea into our people's heads, then we will have no trouble in getting our plan adopted;

then we will have no trouble in getting the money which we require in order to carry these plans into effect. But our people must appreciate the idea that town planning is not born with the intent of spending money, it is not simply a new kind of extravagance, but is conceived with the idea of preventing extravagance and preventing waste and getting good value for the money which is expended. When that idea thoroughly permeates our people, we shall make progress, substantially and rapidly. I think that this meeting will go a long way toward getting our people to understand that idea, because the reading of the discussions which have taken place, so eminently practical, so eminently sensible, so eminently based upon sound economic ideas, cannot fail to be impressive.

If I let myself go I shall find presently that I am making a speech, which I have no intention of doing. I simply desire to express my appreciation of your presence and of the success which has attended this gathering, and to express the hope, on behalf of myself and my colleagues and friends who have taken part in the movement to secure your presence in Toronto, that this will not be the last Town Planning Conference that will take place within the limits of the Dominion of Canada.

Now I shall ask Mr. Thomas Adams to propose the health of the Dominion and of the Provinces, and this health will be replied to by the Honorable Mr. Burrill, Minister of Agriculture; by the Honorable Mr. Hanna, Provincial Secretary; by the Honorable Mr. Mackenzie, Provincial Treasurer of Quebec; and by the Honorable Mr. Langley, Minister of Municipal Affairs, of Saskatchewan.

MR. THOMAS ADAMS, *President Town Planning Institute of Great Britain:*

I have been honored by having the duty placed upon me of proposing the toast of the Dominion and the Provincial Governments. It is an honor which I appreciate very much personally, and an honor which I also appreciate on behalf

of the mother country, which looks to this great Dominion with feelings of affection, hopes for its future prosperity and the assurance that no part of the Empire is likely to surpass it in future greatness or in the supremacy of its commerce.

May I, in the first place, express appreciation of the excellence of your arrangements and offer my congratulations on the success of this great Conference? I think that you are to be congratulated not only upon the excellent discussions which you have had and the excellent papers which have been submitted to you, but also on the minor details of your Conference, including the silvery toned voice of Mr. Lecky. However much the success of a Conference of this kind depends upon its debates and upon the public sentiment which it creates, a great deal of the real success is dependent upon the way in which matters of detail are attended to. And I think you are also to be congratulated in Canada that you have a Commission of Conservation which takes a broad-minded view of conferences of this kind, and which regards them as occasions when men who have ideas on these kindred subjects of architecture, engineering, surveying and town planning can get together to exchange views, to educate one another and, moreover, what is perhaps more important in connection with this matter, to educate public opinion also. I believe that one of the principal duties of town planners, in addition to that of training themselves in the technicalities of their profession, is to educate public opinion as to the righteousness of the cause to which that profession is related.

I listened with a great deal of sympathy to the remarks of one of the ministers of one of the provinces when he said that nothing should be done in this Dominion which would conflict with democratic principles. We are today in England face to face with a situation of a somewhat similar kind. As a public servant I am prevented from being a politician, and rightly so. To some extent I am thankful, but on general principles I am entirely in agree-

ment with the sentiment expressed. In matters of town planning we will make little progress unless we prepare our schemes with the assent of the people. But at the same time no great democracy can succeed, and no confederation of municipalities can secure the progress which they desire, unless they bring to their aid every form of skilled advice that they can secure, and employ every means to make the best use of that advice.

When men devote their whole lives to a particular subject, however inadequate their abilities may be, they learn something more than the man who gives it some cursory attention. And consequently I think that in regard to town planning, without in any way suggesting in connection with your town-planning legislation that municipalities should lose one iota of their independence, of their liberty or of their local autonomy, they should not object to legislative machinery which will secure for them the highest skill and the best ability to help them in solving their problems. You can still have the fullest measure of independence and liberty without in any way losing the advantage of employing the assistance of skilled bodies or skilled commissions or skilled committees to help you in these matters. You must also have coöperation between different municipalities to solve your problems. Without giving up their right to settle local affairs, authorities in England are coöperating with one another in regard to those matters which affect them in common. More of that coöperation is needed in all our public affairs.

Now, sir, at this function which closes a very important Conference, it is not desirable to go into any of the details which we have been discussing, but I think it is well before we part to remind ourselves with regard to the point which you yourself stated from the chair, that town planning is no mere dream of a few sentimentalists, but is a practical proposition for saving money.

You have in the Provinces of Canada united under the Dominion Government a great responsibility in this con-

nection. At the present moment you have a population of eight millions of people. It has grown since 1901 from five and a half millions, and every day is increasing in volume. Some representatives of the Western cities humorously describe the growth of their cities by saying that they cannot tell you the present population as the last train has not arrived. It is quite a proper illustration of the rapid growth of many of these towns. Saskatchewan has grown in the last ten years to the extent of 400 per cent. This is quite an unknown figure in the old country, although some towns mounted up in some cases to 124 per cent in the same period. The Province of Alberta has grown to the extent of 412 per cent. These figures are important. All growth is important, but the tendency of that growth, whether in the direction of increasing your rural or your urban population, is also important when you come to consider the social needs of that increase of population. In this Province—Ontario—in which we are now met, during the ten years preceding 1911, the rural population decreased by 50,000 and the urban population increased by no less than some 392,000. Now I am far from suggesting that that is an unhealthy development. Towns are not necessarily in themselves unhealthy; it is their mismanagement that makes them unhealthy.

The little shacks that you see dotted round about the city of Toronto are places in which you and I would be quite pleased to live on the side of a mountain or in a rural valley where there is nothing to prevent our enjoying all the advantages of nature and open air and sunshine; but just as in England the people who come from our mountains and our valleys into our large cities seek to live in the same cramped conditions in our towns as they have been used to in the open country and find that it won't do, so you will find that wooden shacks with inadequate sanitary arrangements, for which perhaps in a new country you cannot be held responsible, and which may be quite suitable amidst rural conditions, are only breeding places of dis-

ease and death when they are brought into the close contact with urban conditions and when they are crowded together in rookeries in the immediate neighborhood of your large cities. What you have got to do is to apply to your cities those measures which will make them healthy, so that with all this decrease in your rural population, and with all this increase in your urban population, you shall still have the same low death-rate and a high standard of public health.

The conclusions at which we have arrived during the last few days are, I think, such as to enable us to go to our various countries with certain settled principles in our minds which will be very helpful to us in the future. I should like only to emphasize one point with regard to these discussions. Do not let us underrate how extensive and how broad based town planning is. It does not concern itself alone with the work which town-planning commissions have been doing in the past, devoted, primarily, as it has been to civic centers and the consideration of transportation; it does not deal only with the laying down of main arteries from the centers of our cities to our suburbs, nor with questions affecting the homes of the people, nor with the laying out of harbor fronts and the improvement of our industrial conditions, but it concerns itself with all of these problems, with everything affecting the whole city life in regard to which we require to exercise foresight. It seems to me, sir, that what we require to do is to apply the same imagination and foresight in regard to the management of our city affairs that we apply to the management of our great businesses. We have to use the same common sense and apply the same scientific principles in the carrying out of this work that we would apply if we were engaged in money-making. And then finally, having applied that imagination and having exercised that common sense and judgment in putting our theories to the test of practice, we should pursue with energy and devotion the work of bringing them to successful fruition.

This is a great country and the Provinces which constitute the Dominion have a great task before them. Their difficulties are as great as ours in the old country. As I said last night, they are, perhaps, as great in degree, although they differ in character. We in the old country do not grudge Canada the men and women she is attracting to her shores; all we ask is that she will faithfully discharge her trust. My toast is the Dominion and Provincial Parliaments whose duty it is to take care of the lives of eight million people in this great country and who are the trustees for tens of millions of future citizens. We town planners have every faith that they will adequately discharge their responsibilities. Gentlemen, I ask you to rise and drink to the Dominion and the Provinces of Canada.

Hon. Martin Burrill, *Minister of Agriculture, Ottawa:*

It is with a great deal of pleasure and some sense of responsibility that I rise in response to the toast which has been so effectively proposed by our friend to my left. He has rightly said that in this great country one may have come to this Conference from farther off than London, the heart of the Empire. Perhaps a better illustration of his words cannot be found than that the first speaker in response of this toast should come from the far-off Province of British Columbia. My old home is considerably farther from here than the great city of London is. I am here tonight, sir, to express on behalf of the Prime Minister of Canada, the Right Honorable R. L. Borden, and on behalf of the Government of Canada, the very deepest sympathy with a movement which means so much for the betterment of the condition of life of the people of Canada as a whole.

You will not of course expect me, sir, to give any expert opinion of town planning. Indeed, if you did expect me to, I think I should suggest that you were a good deal like the gentleman who spoke to a very impecunious individual and asked him if he could change a ten-dollar bill; he said

he could not, but that he was very much obliged to him for the compliment.

We shall however, I am sure, all agree with Aristotle's definition of a city — his ideal conception of a city, that it is a place where men should live a common life for a noble end. I am particularly glad, Mr. Chairman, to be here, and to see this very pleasant innovation of having a number of ladies present at a banquet of this kind. I can say this without being accused of any hypocritical leaning toward suffragism or anything of that kind, because if there is a movement in our modern life which should command the sympathy and support of women, the homemakers of the world, it is that of town planning. At all events, as far as we poor unfortunate males are concerned, we confess freely that their presence, their advice and their constant sympathy and help inspire every man who is interested in such a work with fresh courage to go on and perform his task. I speak particularly of course of married women; the sympathy and support of married women, the homemakers, should inspire us with courage; and I am almost inclined to quote a somewhat cryptic saying as illustrative of the courage that comes to men from woman's sympathy, by giving you the answer of a little boy in reference to the great courage displayed by the Turks in battle. He said the Turks were the bravest of men, because a man who has a great many wives is less afraid of death than a man who has only one wife.

Hard things may have been said of cities in the past, and even in the present, and of course as Minister of Agriculture in Canada, one whose special attention is devoted to the rural districts of Canada, one sometimes hears, and is even perhaps guilty of saying, somewhat hard things of cities. But we have all got to remember that the cities of the past and many of the cities of the present have been responsible for the building up of the greater forces of our modern and our past civilization, that the impact of mind on mind and the interplay of moral and intellectual

forces which are associated closely together in our great centers are responsible for the advance that civilization has made in all ages. It is perfectly true that there is a darker side to our city life, and it is not without some poignancy of regret to every man who believes that from the great country homes of the land the streaming forces that uplift the whole of the national life must and do mainly come, it must be a great matter of regret that in Canada, essentially an agricultural country today, there are 45 per cent of our people living in urban homes. In speaking of that, one cannot forget that the great cities of the world are characterized too often by squalor and by a dismal poverty that must rob man of his manhood and point to nothing but dismay.

Lord Rosebury once, in speaking of the great city of London, which many of us know fairly well, said that London was the great tumor and elephantiasis which sucked into its gorged system half the lifeblood and bone of rural England. And in speaking of the terrific pressure of business life and the fierce stress in the struggle for existence that goes on in such a great center, no man who has studied it at all but must have been struck by the desolate loneliness of a man who is cast adrift in one of these great centers, literally, in the words of Carlyle, "One lone soul amid the grinding millions." It makes one's heart bleed to think of the terribly depressing circumstances that confront people who are on the poverty line or below it in those great centers. One looks with grieving sympathy at the children, dragged up in such surroundings, and understands with what joy they dream of a trip into a country that they have never seen. One comes across many instances of the puzzled ignorance of the country in such children, and even their inability to enjoy it. I remember one amusing instance of a little child in London who went to the country for the first time and expected to see something which would thrill or interest her — she did not know what. When she got back she was asked by her teacher whether

she had had a happy day. She said she had had a very happy day. She was asked what she saw that particularly amused her, and she said: "I saw two pigs killed and a gentleman buried." That was her conception of a happy day.

In the great cities of our land, as of all lands, we should strive to transplant some of the beneficent influences of the country, and I think that is one of the things that you gentlemen are endeavoring to do. It has been said that the common things of the country are better than the most costly masonry of the city, and it has been said with some truth and with some sarcasm by one writer that a grove in a city is a street full of shops lighted by glaring gas lamps, and that an avenue consists of two rows of houses between which lamp posts are planted at regular intervals, and that a garden is rather a collection of houses without a scrap of ground in which anything is growing to enliven existence. In the keen anxiety of people to make money out of real estate, houses are crowded together by the speculative builders to such an extent that it is small wonder that the pathetic answer of a little child to her mother should occur. The mother was dying in poverty in a huge city, and she had pictured the beauty of the land to which she was going, that better world where she hoped for some surcease from sorrow and suffering. The child said: "Yes, mother, that will be well enough for you, but by the time I get there it will be all built over."

In our haste for material ends and in our feverish anxiety to make material success, we are too often satisfied with gorgeous material creations in our cities, without due respect to the things which you gentlemen are here aiming at. I remember a story which illustrates the point, and I speak now to our good American cousins who, some of them, may know something of the conditions of the West from which I come. In some of the Western cities the idea of material success was rampant, regardless of the health or the moral forces that should dominate every great city in its modern

life, and one gentleman from the city of Seattle, which some of you may know, which about ten years ago was reveling in what some people would call crime and which other people called a successful demonstration of civic disinterestedness — this inhabitant of Seattle, who had all the usual robust patriotism of the Western citizen, died rather suddenly; he woke in the other world, and there was a spiritual visitant at his right hand to show him the wonders of the other world, and when the Seattle gentleman opened his eyes and looked around he said: "Well, after all, Heaven is not very different from Seattle." And his guide said: "My friend, this is not Heaven."

We may possibly have been pessimistic in regard to the evils of congestion and of city life generally, but after all we are still endowed with clear ideals of what the conditions should be, and with the determination and enthusiasm to make them such if possible in our own life and time. It is true that nothing can be done without hope, and it was a far-sighted American, Ralph Waldo Emerson, who said: "A man's wisdom should be judged by his hope." We were told a little while ago by an eminent scientist that we should take cognizance of ourselves and realize from what we had sprung and whither we were going; and he said we had only to look back a certain distance to find we had come originally from our ancestor, who was a microscopic dab of mud, and if we looked far enough forward, as the strength and development of the brain was ever going on, that probably our successor in the far future would be a hairless, toothless, stiff-limbed being incapable of extended locomotion, with no division between his toes and priding himself on a great many developments that we should not pride ourselves on at the present time as improvements if they were at once inflicted upon us. How that may be I don't know — it is difficult to prophesy what our posterity may be; but I do not think we should underrate the great influence of the warm heart of humanity, and we may be thankful that we live in an age when we can see around us

the effects of the great forces of altruism, those forces which inspire men and women to try to leave this world a little better than they found it when they came here.

It is true that in the older days we had the great doctrine, and we have witnessed its effect, of the survival of the fittest. A great many beautiful things, as well as a great many cruel things, have resulted. It has been said sometimes that we have had the survival of the unfit. But at all events we have the great forces of Christianity directed toward the relief and the removal of the suffering and the pain and distress of the unfit, and it has remained for us in this later day to attempt something in the way of reconciliation of religion and science and to show not only that we should have hearts full of pity for the suffering and distress of those around us, but that we should turn scientifically, and inspired with religious common sense, not only to relieve suffering, but to change the environment of the sufferers so that we shall remove the chief cause of suffering.

It is for you, ladies and gentlemen, who are banded together in a movement of this kind, to see that the open spaces of God are accessible to every one of God's children, no matter where they are placed. This is a great duty in which you, as well as those of us who are intrusted with the responsibilities of Government, should feel an equal privilege and responsibility. All such work not only demands that it should be sincere work, but that it should be absolutely honest work, free from hypocrisy and free from that extravagance that marks too much of our modern efforts.

I say let a man be sincere. I remember in my young days an old squire in the district of England where I was born; he had one of those old-fashioned plush waistcoats, and it was made of plush all the way round, because he abhorred hypocrisy, and he said it was simply hypocrisy to have a waistcoat made of plush in front and of something else behind. And that reminds me of the story that was told of this very city of Toronto a great many years ago, when there was a certain church, a rather poor and orna-

mental frame structure, and the congregation, having amassed some money and paid off their debts, put up a beautiful stone structure in front of the old frame building. Some gentleman, inclined to architectural study, asked a member of the church what style of architecture he called it, and he said: "Well I should call it a Queen Ann front and a Mary Ann back." In our efforts to perfect our work I think we should try to carry out ideas of sincerity and honesty. Every one of you gentlemen here who know the great cities of England must rejoice in the fact that, in spite of the squalor and poverty of some districts, there is continually being devoted a great amount of unselfish and earnest work toward the amelioration of the conditions that exist. I spent some months in England last year, and it was a delight and an inspiration to go from the hotel where I was staying to those old Temple Gardens and see night after night crowds of people listening to a splendid band, a different band every night, playing good music. Perhaps 5,000 people in that one park, and all it cost, if you wanted to sit down, was two cents for a seat. A very good example for us.

Here in Toronto we have a city which Canadians are all proud of. It is a city which has many beauties and which every citizen should do his best to make better even than it is. I am afraid, Mr. Chairman, I am doing what you deplored — drifting into a speech, which was not my intention when I began. But I must say a word of welcome on behalf of the Dominion to the large number of American visitors we have at this Conference. It has been my pleasure recently, on behalf of the Government, to entertain the South American and the American and Mexican envoys who have been trying to make peace between the United States and Mexico, and I think anyone would have done the same thing in my place in speaking of the hopes of the Canadian people for a successful solution, and that is — call to mind that this is the year of the century of peace between two great peoples, allied in their blood and their

language. One could not help saying then what one may repeat here: that as the great River of Niagara divides the two peoples, so the great steel bridges link us together; and as the stream which flowed seaward was the dividing line, so the great tide, the calm and peaceful and full tide of commerce and of intellectual intercourse and sympathy and aspiration, from one to the other, was a tide which one hoped to God would never be rolled back by the ruthless hand of war.

I can only say, Mr. Chairman, in conclusion, that I wish to thank you for giving me the opportunity of being here and of saying once more on behalf of the Prime Minister, who would gladly have been here if he could, and on behalf of my colleagues in the Government, that we are not only gratified that you have had a successful Conference, but that we wish you Godspeed in all your efforts.

HON. W. J. HANNA, *Provincial Secretary of Ontario:*

I wish to congratulate you on the success that has attended your meeting from the beginning. You are engaged in a work that in one sense, to us here in this Province, is comparatively new. But I wish to assure you on behalf of the Government of this Province that we are interested in the work that you are doing and interested in seeing just where it will lead. More than that, I think we can fairly say that the sympathies of the Government of this Province are with that work, to help in any way that we reasonably can.

It is more by way of confession than by way of boast that I tell you that City Planning has to me today a very different meaning from that which first attached to the term. The first idea I got of City Planning was on a trip West some few years ago, to the Province which is the home of the Honorable Mr. Burrill. On that trip I traveled through the Province which was then represented by the Chairman of this evening. The railway was comparatively new, the country was equally new, and at regular intervals

along that railway as we went West there were a few cedar posts thrown loosely on the ground, there were a few loads of lumber, there was occasionally a yoke of oxen, perhaps a team of horses, and a tent or two. Sometimes there was nothing, simply the stakes. But they were busy, and when we came back ten days afterward there had been a good deal of City Planning done on these different spots. As we came back those spots were erect, there was a roof on them and there would be about two acres of Deering and Massey-Harris machinery strewn about the ground. A few rods down there would be a livery stable, and a little farther on there would be a hotel, and there would be some more people and some more oxen and some more horses, and there would be a great sign, bigger than the livery stable, and bigger than the hotel, and bigger than all the rest of it — a great sign with the words " See us grow." That was my first conception of city planning.

In my innocence I came home, and perhaps six months afterward some gentleman from the West called with some nice certificates and told me how Rube City had developed since I was West and asked me to take an interest in some lot that, on looking over the plan, appeared to be about five miles out from the station. Well of course it was simply a matter of figures. I had had ten days' experience on the ground, and seeing the development that ten days had produced, I had merely to multiply that by fifty weeks in the year, and there was no question that Rube City must now be a place of somewhere about 100,000 and that lot would be worth anything they asked for it, and there was nothing for me but to invest and to make the 400 per cent that someone has spoken of as the usual increase in the West. City planning has a very different meaning today. It means very much to the older Provinces and very much to the newer Provinces of this Dominion of Canada.

I am glad that the Honorable Mr. Burrill is here tonight. I am glad to have had the pleasure of listening to the very

able and eloquent speech that he has tonight delivered. And I shall be glad to hear that when he goes back to Ottawa he has delivered that same speech to his colleagues in the Government at Ottawa, and has convinced them of the importance of action in the very direction that he has indicated here tonight. I will be glad of that for reasons that are very real, I will venture to say, to the Honorable Mr. Mackenzie, representing Quebec here tonight; for reasons that, I venture to say, are very real to the Honorable Mr. Langley, representing one of the Western Provinces here tonight. Why? Because these very things that are involved in city planning are new; they were not thought out at Confederation; they were not thought out for long after Confederation. When the division of the responsibility, when the division of revenue, when the sources of income were settled at Confederation as between the Provinces and the Dominion, the things that are involved in the question of health, the things that are involved in the question of highways, the things that are involved in the question of housing, the things that are involved in the question of city planning, the things that are involved in the questions kindred to these all along the line, and that are today being cast upon the Provinces, were not provided for, adequately, in that division of revenue. And I do hope that the Honorable Mr. Burrill, imbued as he is with the purposes that you have at heart and are working on here in your organization, will be successful when he goes back and repeats to his colleagues the appeal that he has so eloquently made here tonight.

What does it mean? Take for instance the treatment of the mentally afflicted. Now I am not going to take up your time here with an elaboration of our difficulties. I know we have our American friends here tonight and we are glad to have them. They may not be in touch with these problems in the same way as we have them in Canada. But if they have not to meet these difficulties in the same shape as we have, they have to meet them in some other

shape or form. Now in 1867 the mentally afflicted were comparatively few who were in the care of the Province. Because the definition of what constitutes mental affliction was very different in those days from what it is today, the responsibility of the state as it was regarded in those days was very different from what it is today. The Provinces today, from the Atlantic to the Pacific, are expected to build institutions and to maintain and provide for a great class of the population of the Dominion of Canada that in 1867 would be found in the home, would be found back on the side roads and concessions, the villages and the towns and cities, without anyone looking to the Province or the Dominion for the care of these particular people. The standard of public duty is being raised from year to year, and every time that standard is raised, the expense and responsibility of the Province is increased, without the revenue being increased with which the Province may meet that obligation.

What is the result? I ask my friend Mr. Burrill. We go down to Ottawa and you listen to our arguments and you say we have made out a splendid case theoretically, but you refer to the Constitution of 1867 and say, "There the line is drawn," and we come back empty handed and with empty pockets. The duties of the Provinces are increasing. I say here tonight — it may not be the proper place to say it — that I hope the day will come in this Dominion when the public in these cases shall not, in all cases at least, be represented by the Provinces, but that the Dominion will enable the Provinces to take care of and to discharge their great duty.

I was very much interested in what was said by the proposer of the toast, Mr. Adams, when he referred to democracy. I want to say that we believe absolutely in democracy. We believe in it particularly in matters that affect the life and health of the people. We believe in the democracy that is acting upon the advice, the skilled advice and the able advice, of those who know. We believe in starting out by getting what is best in the way

of advice. Then we believe as well in giving democracy a fair chance to adopt that advice. But democracy does not always adopt it as quickly as it should. It sometimes taxes our patience, and I want to say in matters of that kind, where democracy is just a bit slow in adopting that good advice and that skilled knowledge that is ours and is theirs — then I say, in matters of health at least, it is pretty nearly time for government to come in and tell democracy what it ought to do and what it must do now.

Then as to social problems. Highways in many parts of this Province of Ontario were trails through the woods, not thought of in 1867 in this Province, and I am sure that applies to the other Provinces as well. But highways are essential to the social life of the people, whether living in the country or in the city. And if the state, whether represented by the Province or the Dominion, is going to discharge its duty to the great public, and is going to make the people of this Dominion the citizens that they will be if given a fair chance, there will be money by the million spent in highways in this Province alone, and in the other Provinces as well, in the few years next to come.

Where is it going to come from? I ask the Honorable Mr. Burrill. Why, it is going to come from the bulging revenues of the Dominion after the Honorable Mr. Burrill repeats at Ottawa that splendid and eloquent speech he has made here. As to the duties that are imposed upon the Province, I want to say this in justice to the private citizen and to the public-spirited men that today are coming to the front, not only in this Province but, I venture to say, in the other Provinces of the Dominion: the duties to those that cannot help themselves are not always thrown back on the Dominion, they are not always thrown back upon the Province, they are not always thrown back upon the public funds and the sources to which I have referred. I am very proud to have the opportunity of saying to the credit of men, private citizens who have today reached that point where they can afford from now on to give to the great

public of this Province and of this Dominion the services that the people are entitled to—I want to say in credit to these men that we have in this Dominion and in this Province men who are rising to the occasion. We have one of them in the Chair tonight in the person of the Honorable Clifford Sifton. We have others that I might name; one whom I should have been glad, indeed, had he been able to be present here tonight, or here on this occasion in connection with this Conference. He is not here; he is in England in connection with his work, in connection with the very problems that you are here considering and helping to solve. I refer to Mr. Frank Beer of this city of Toronto.

It is just a bit discouraging at times when men have given of the best that is in them in the way of work and in the way of brains, when they have behind them the best advice they can get — it is just a bit discouraging to the private citizen who goes at these big problems in a big way to find at times a section of the community that does not hesitate to criticise unfavorably his scheme and to add to that the questioning of his motives. I say that this city of Toronto and this Province of Ontario and this Dominion of Canada are under great obligation to Mr. Frank Beer for the Housing Scheme that he is identified with in this city of Toronto, and that will not end with what has already been done and will not terminate in this city.

It has just occurred to me — I had almost omitted it — we have heard the Honorable Mr. Mackenzie mentioned from the East and the Honorable Mr. Langley from the West, and here is the Province of Ontario between. You know we have sometimes quite a debating school in the Legislature across the road here; and when we want to prove anything on one side of the question, we go down to Nova Scotia, New Brunswick or Quebec and we get our case there. When someone on the other side wants to prove that we are all wrong, he goes to British Columbia, to Alberta and Saskatchewan and Manitoba and he has us with-

out question when he makes his case in the West. But there is no greater folly in the world than to think that the legislation that works out under one set of conditions in a new Province can be taken holus-bolus and be applied to the conditions that obtain in the old Provinces, whether that old Province be Quebec or Nova Scotia or New Brunswick. It does not condemn any proposition they have in British Columbia, whether it be single tax, whether it be municipal ownership or whatever it may be — it does not condemn that proposition, whatever it may be in the West, when we in this Province of Ontario or the older Provinces in the East say that, giving it the best consideration we can give it, we cannot apply it here because we have not the primitive conditions to which to apply it which they have in those Western Provinces. I am sure those in the West will bear that in mind, because it is for the benefit of the future of this great Dominion of Canada that so many of the new men, the public men in the new Provinces of the West, are in such close touch by birth or otherwise with the older Provinces of the East that they can appreciate the differences without getting into the mistakes I have in mind. I say again, it does not condemn any scheme to say it is working well in the Provinces of the West, because we in the older Provinces of the East cannot root up the conditions that have been established for thirty, fifty or eighty years, throw them away and apply the new legislation of the West to conditions that have been so long established here. I say this not because it is *a propos* of anything here, I say it because the mention of the Honorable Mr. Mackenzie's name and the mention of the Honorable Mr. Langley's name suggested the idea to me, and I thought I would at once get free from the idea.

Hon. George Langley, *Minister of Municipal Affairs, Saskatchewan:*

I think if I were to round up the thoughts that are in my mind in about half a dozen sentences and then sit down,

that would answer the purpose better than occupying your time for any considerable length.

Our American visitors have had an opportunity of hearing what we Canadians can do in the way of eloquence. I have listened with very great pleasure to the speeches delivered by the Honorable Mr. Burrill and the Honorable Dr. Hanna, as I did to the speech by my countryman who proposed the toast.

I had strange thoughts in my mind while the denunciation by Dr. Hanna was going on. All that he said is true. The Honorable Mr. Burrill deserves every kind of castigation that Dr. Hanna can give him.

What I think I have a right to appeal to is that Dr. Hanna himself should be consistent, and if the Honorable Mr. Burrill and his colleagues will not do what Dr. Hanna wants done, then when the opportunity comes, I hope I shall be able to reckon on Dr. Hanna's support and assistance in sending Mr. Burrill and his colleagues about their business. That seems to me the logical and proper outcome of that outburst of eloquence on the part of Dr. Hanna. Our American visitors will not be here, but the Canadians who are sitting at our tables tonight will be here, and I will bet very heavy odds that when the time for action comes, Dr. Hanna with all his might will be supporting Mr. Burrill in doing nothing.

Well now, I should not have said that, except that I was carried away by the doctor's eloquence; for I really had no intention of introducing Canadian politics into this very friendly gathering that we have here this evening. Before I dismiss that subject altogether, I will do what Dr. Hanna said I ought to do — deliver a message from the West; and the message is not only to the doctor, not only the Honorable Mr. Burrill, but to the citizens of the city of Toronto. I should be unjust to the men whom I represent in the West if I did not deliver it.

We have a condition of things in Western Canada today which demands the careful attention not only of those of

us who are in responsibility in the West itself, but it demands the careful attention of every thoughtful citizen of this Dominion. Do you know, Mr. Chairman — you do of course, because you understand the West — that we have in the prairie Provinces of Western Canada today not less than 100,000,000 acres of virgin land that have never known the plow; and we have tens of thousands of men loafing idly about our new cities and refusing to go on the land. That is of the utmost importance, ladies and gentlemen, for this reason: the whole layout of the older Provinces of the Dominion, the whole layout of the manufacturing portion of the Provinces of Quebec and Ontario, is based on what? It is based on the expectation that the development of the West will continue. And as a matter of fact we have come to a point where we are nearly stagnant. With 400,000 new immigrants coming into the land, with 100,000,000 acres of land awaiting the husbandman, we are in this condition of stagnation. Think of it, ladies and gentlemen! It is a matter that you will have to think of for the reason that the conditions in the West today will reflect themselves back into the East. And when you are spending hundreds of millions of dollars, a very large portion of them drawn from the West, right here in Eastern Canada, the source of the Dominion's prosperity is being dammed up.

If these gentlemen had not talked politics I could not have said this, and to that extent I am very much obliged to Dr. Hanna for his political outburst. And I am equally thankful to have the Dominion Minister of Agriculture present to hear what I have had to say.

When I came down to the Town Planning Convention, I came as a scholar, a student. I wanted to hear what you good people who have given thought and attention to this matter had to say. I have listened to you with very great pleasure indeed, and I hope with some profit.

There was another reason, and the other reason was — I was assured that a very large number of ladies and gentlemen from the United States would be here, and I wanted

the opportunity of meeting them. I am an Englishman, but I do not remember the time when I was not a very sincere admirer of the Great Republic to the south of us. I have learned some things about that Great Republic that I did not know before. Out in my Western home, on the broad prairie, as I read the newspapers I have wondered how it was that so many married couples in the United States were divorced. After listening to the papers at this Convention for two days, I have come to this conclusion — that most of those marriages must have been "unconstitutional."

I was saying to a friend of mine the other night that there have been times when I thought that I should have liked to have been a citizen of the United States. I am quite certain, if I had been, that I should have been immensely proud of it, nearly as proud as I am to be an Englishman. But imagine a young man going out sweethearting, and then when he reaches the moment of proposal, of popping the question, the young lady saying to him, "Wait a moment, George; make sure this is constitutional." Why, Mr. Chairman, the forty years of happy married life that I have had, being an Englishman, might never have happened at all if I had been an American. That is one of the strange things that I have learned at this Convention, and may I just for a moment seriously call your attention to what seems to me a most extraordinary condition of things. We in the Dominion and you in the United States, on that matter to which I have jocularly referred, started from the selfsame pivot — the right of the individual under English common law to demand the protection of his property and his rights. We both started from that point, but I think we have gone in opposite directions. In the Dominion we emphasize the right of the community against the individual, until practically today in the Dominion of Canada the individual has no right at all, except the right he possesses as a member of the community. When any public scheme is put forward among us, the vote of the com-

munity is taken; and if the community decides a certain thing shall be done, the individual must submit to it because the community's welfare overrules everything connected with the individual.

Now how differently you have drifted in the United States. Instead of emphasizing the right of the community against the individual, you emphasize the right of the individual against the community. And the consequence is that when anything is proposed to be done by the community, some small-souled man — and every community has them — some small-souled man says, "I object to it," and he appeals to the court, and in order to sustain his individual right he is able to hold up the whole community. It is a most extraordinary and fascinating study.

And there is another outcome to it, Mr. Chairman. In our case we have no difficulty at all. The legislative authority makes its laws, and those laws are supreme over all, even over the Constitution. In your case your state legislatures make your laws, and a small-souled individual appeals to the court against the law, and a lawyer, in judicial office of course, decides whether the law has any authority or whether it has not.

I have discovered something that I did not know before. I have discovered that while we in Canada are ruled by the popular will, our good friends in the United States are ruled by the legal profession.

I was really amused in one of the discussions in the Convention. One of the clearest minded men to whom I have listened for a long time got up and said he was a lawyer, "and if you men and women engaged in town planning want to do anything," said he, "you have got to come to me." Well, I will say this: If I was a citizen of the United States, of course I should belong to the Town Planning Convention, but that would be only secondary and incidental. I should belong to an institution that would redeem my country from being governed by lawyers.

The conditions in the West have been referred to. We have this advantage there — that we have to a certain extent a clean sheet to work on; we have not all the difficulties that have crept up in the older communities: but even the short experience we have had in my own new Province convince us how easily these objectionable town conditions grow. I remember, Mr. Chairman, driving to a point in the West some twenty years ago with a team of oxen and stopping at the only house there was. I slept on the kitchen floor and the good man and his wife who gave me shelter slept in what by a euphemism they called " the other room." And the same thing continued for nearly ten years afterward, and yet today on that very spot we have a population of twenty-five or thirty thousand people, so rapid has been the growth there. With that growth has come a tendency, let me say it with regret, to have a congested area in connection with that small population. Consequently, to make quite sure that the evils that afflict the old communities shall not afflict the new communities, town planning is a matter of vital importance to us in that new country. For that reason I came down, at the request of my colleagues, to this Convention to hear what you had to say, in order, if possible, to carry your ideas back to the West with me and put them into operation there at the very beginning of things.

That is what I am going to try to do. I cannot talk to you about these things in the eloquent language of Dr. Hanna, but I know how many beans make five when I have an opportunity of counting them, and I am going back to my colleagues and my people with the lessons I have learned from you ladies and gentlemen in our private and public discussions here. I am not going back at all on what I said last night in conference session, not a word of it. We have a democratic principle and we must stand by it. I am not going home to tell my people that I am a very superior person, I have learned town planning, I have listened to engineers and experts, and I know all about it

and I am going to make them do what I want them to do. I am not going to do anything of the kind. My good friend Dr. Hastings was inclined to take me in hand during the earlier part of the evening, when I was so busy eating I could not talk to him. He said: "We must to some extent impose our orders on our people." I took time to ask the doctor a question. I said: "Are you married?" And the doctor said: "Yes, I am married." "Well," I said, "if you want anything done at home, do you go home and say, 'It shall be done, I order it!'?" "Oh no," he said, "I don't do it that way." Of course he does n't do it that way. I have been married forty years myself, and I know all about it. I have got a lot of things done that I wanted done, but not that way. And in connection with our municipalities there is no need of it. We have only got to point out to our people what is right, what is necessary, what is indispensable and immediately our people respond.

My good friend Mr. Adams says: "You must have expert advice." Why, of course, that is what we shall provide in every possible way. Our friends in Ontario have been worrying about public-health matters for a number of years. We out in Saskatchewan — a beautiful musical name, is it not? — have a public-health system wherein we insist on the most up-to-date conditions in connection with the disposal of sewage. We have never been obliged to say to anyone: "You shall do this." All we have had to do is to explain the necessity of it and the way to do it and immediately our people have been more than anxious to have it done.

That is what we are going to do in town planning. Some day, ladies and gentlemen, we shall have the pleasure, I hope, of having you meet somewhere in the Western Provinces; and when you come you will find that you are not up against all these old-world conditions which our good friends from Toronto hide from you as much as they can, but we shall have the clean slate, written on by scientific town planning,

and when you come you will be so delighted I am afraid we shan't be able to get rid of you.

Ladies and gentlemen, I have been delighted to be present at this Conference and to attend this banquet tonight. I thank you for your kindness in listening to me, and I hope we shall all have an opportunity of meeting again.

MR. J. L. MCCARTHY, *Vice-Mayor of Toronto:*

It is indeed a very great pleasure to propose what is, after all, the toast of the evening — "the National Conference on Town Planning."

It has been, as I said at noon today, a very great delight to the city of Toronto to have this Conference here. We have appreciated the very many kindly things that your conscience has allowed you to say of the city of Toronto.

I am reminded of an Irish welcome that I heard extended a few days ago. An Irishman away from home had met some very congenial friends and spent a pleasant day or two with them, and when he was leaving them to return home, as he shook hands and said his good-bye, he said to them: "Now if you ever come within a mile of my place, I want you to stay there all night."

The President said tonight that town planning would succeed and should succeed only if it was based upon economic principles. It could not be based otherwise. The right way to do a thing is the cheapest way in the end, and in every city, and in Toronto particularly, today we are spending large sums of money because things were not done properly five, ten or twenty years ago. There is no question about that.

We have talked of municipal government, but I think it is a misnomer as applied to city affairs. The work of a great city is a business administration, it is not a matter of politics or government; and the sooner the city of Toronto and other great centers realize that the work of their city after all, the administration of it, is a matter of business for which men should be trained and upon which

men should specialize, the sooner will we have affairs economically managed.

I have tried to conceive how it is possible for a man to be a banker in November, or a barber in December, or an insurance agent on Christmas Day, and a competent city planner or city manager the day after New Year's. That is what we have too largely in municipal affairs today. Looking at municipal affairs as I see them at this hour, what we need on this continent, and this does not apply to Canada alone, but to the whole continent, is that the great university which President Falconer is at the head of should train men specially for the work of city management and for every department of city administration.

I venture to say that there is no better contribution that the great universities of our continent can give for the benefit of the people than training along this line. The city planner will succeed because today the welfare of the human being is occupying the thought of all those having to do with municipal affairs, as it was not occupying them even a decade ago. I think, and I submit humbly for your judgment, that the world today has no more entertaining and fascinating phenomenon than the growth in the last five years of public spirit, of, someone has called it, the humanizing side of municipal affairs in every city in the world. In Toronto today, as in every other city, it is not the Civic Guild or the Town Planning Committee or any other one organization that represents the public spirit or the public interest of this great city, but you will find it in the 90,000 homes of the city of Toronto. The men and women that you meet from east and west and north and south are talking of the public health, of child welfare and of every matter of social welfare that makes home and living conditions better for our people. That will be found I think, the world over, perhaps as never before; man is taking thought for his brother, and taking thought for the generations to come and leaving them a condition in which life will not only be possible, but will be comfortable from every point of view.

It is for that reason that I am delighted tonight to ask you to drink this toast to the National Conference.

HON. GEORGE MCANENY, *Vice-Mayor, New York City:*

I note that it lacks but three minutes to another day. I shall not, therefore, keep you very long. But there is a very real story of gratitude and appreciation that I must get into a few words. We have come here from all points of the United States and of Canada—in fact your Imperial Government is represented here—and through several days we have talked of the great problems that lie within the future of American cities. And when I say American, I mean on both sides of the accidental little ribbon of the Niagara. That ribbon is there, to be sure, but it does not mean a great deal when we meet as we do tonight.

Our story of appreciation begins from the moment of our arrival. It has been nothing but graciousness and splendid hospitality to all of us from all of you. As I recall the words of welcome from your Governor General, from the Duke of Connaught, I feel that here is, indeed, a happy plan of government that permits a man who comes by the grace of the old idea not only to fill your highest offices in the titular sense, but to be keenly alive to the problems of every part of the Dominion and to discuss them with, shall I say, the intelligence of a city planner.

I said to him this afternoon, when I was permitted to share the delights of the party at Rosedale, "Your Royal Highness, I think that you will well qualify for the post of headship of the City Planning Commission if you tire of your military and political duties." He responded with a good deal of enthusiasm to that idea. And so it is that from the titled head of your Dominion, from the Province, from your city of Toronto, from your societies and from every man and woman of you, it has been but one note of friendliest welcome.

We have come here, though, not merely to be welcomed, but to meet you and to talk over these things that we have

in common. We shall take away a great deal more, perhaps, than we leave. We shall take away the lesson of what you are doing in Canada; of the good sense that we find in your Provincial act and in your by-laws of Toronto in the matter of the government of your streets and housing conditions. We shall take away a breath, I assure you, of the Northwest; a good, strong and untainted breeze of the kind of government that is finding root in your new places. I tell you very frankly that I wish I might take Mr. Langley back with me. I should like to fit that speech of his into many a debate in the City Hall in New York. We have, too, been permitted at least a peep behind the scenes in this matter of the adjustment of Dominion and Provincial politics. I had a great deal of sympathy for Mr. Burrill. I sit as part of the government of a city that is really a confederation of cities. We have five millions and a half of people within Greater New York. We are pressing Canada closely, and we have the same story of lack of appreciation of the things, Mr. Burrill, that we try to do for our several boroughs in the matter of the appropriation of funds.

We have gained not merely lessons about Canada. This exchange of views about the progress of the great movement for better and saner city and town planning everywhere has been an epoch-making affair. The Conference is only six years old. It had its origin rather humbly. The fact that it has grown to a Conference of 350 delegates, representing not merely so many parts of our two countries, but such potential parts, governments, Planning Boards and other seats of information and of advice, toward which we have well learned to bend our ear, all of that means that this movement has taken its place in the habit of our thinking about public affairs. We are not going to repeat the mistakes of the past. We are doing two things; side by side we are planning properly for our cities and towns and we are giving them the kind of government that is really disposed to make such planning a reality. And without the second you will make little progress

with the first. City government must be, I do not say *exactly* a matter of business, because city government means more than business in the ordinary sense. It means an appreciation of social conditions and needs. It means a sympathy with the men and the women who believe the public funds to which they all contribute should be used to improve social and living conditions. It means appreciation of those things that are "political" in the best sense and that politically apply to cities; but first of all, to be sure, good business sense, good business system. When you have that established, and when you are divorced from the idea that in our decisions upon city government we must continue to divide upon the lines of national policy—was there ever a greater fallacy?—then we may have some hope indeed for correct City Planning. Because, after all, the realization of the things for which you strive does lie with government, and particularly with city government.

You in England, and even you in Canada, have the advantage of us in the States in one respect. You have the aid of your National Government; you have that centralized control of the development of the idea that runs through the whole scheme. You have it here to some degree. In the States we must depend entirely upon the city. The National Government in the United States cares nothing for, or shall I say it finds no opportunity for, the expression of interest in the affairs of our cities. It has been only a few weeks ago that a proposed appropriation of a comparatively small sum, I think less than $200,000, for the establishment of a national bureau for the conservation of children, for the study of the problems that lie about the growth of the child and the employment and education of the child, was voted down in our Houses of Congress. And by the same votes and within the same time, some tens of millions were voted for war. That is the sort of thing that we swallow with increasing difficulty nowadays, and perhaps the day will come when the children and the women and their social and living conditions and the great

program of preventive health work will have place ahead of the provision for war.

When we come to our state, it is pretty much the same story. There has been an attempt at aid. It has so far amounted to little more than interference, and a bungling interference at that, in the affairs of the city of New York. As I say, we must rely on the cities themselves as the agencies for getting the better things that we want. And may I suggest, those of you who are working in this cause, that you put right to the front in your program your appeal to the men who have the reins of government and who have the funds of the people under their control? While you are devising your plans and while you are preparing the arguments that convince each other in conferences like this, prepare yourselves also for the conversion of those who govern, and, for that matter, of the people who support those who govern. I may, perhaps, say that with the more feeling, because I happen to be a member of the government of the city of New York, and because constantly before us in our Board of Control, which we call the Board of Estimate and Apportionment, are brought schemes that involve millions of dollars and that involve the welfare of the people at every point. Frequently these schemes are wrong, and it is not always that the wrong thing is put down. Frequently it is difficult to gain the ear of the people or the press for the thing that is right. It lies largely with you that government itself shall be properly educated, and that you shall gain the use of our great funds of public money for the advancement of your work.

It has been well said here this evening that city planning is no longer regarded as a thing that is either selfish or fanciful. When I realize that it means the actual building of our cities, the planning of their streets, of their railways, of their terminal facilities, the planning of proper housing conditions and the protection of the individual against his neighbor; when I think of all that lies within the scope of a "city plan," and then of the fact that we have gathered

together more than half of our people in cities, and that the salvation of the next generation of these same people lies in the correct solution of these problems, I wonder why the people themselves are so backward in realizing that the control of the problem is absolutely in their hands. They have only to take the government of the city for their own uses, use it in their own way, and the thing is done.

Usually, taking the government of the cities—certainly with us and possibly with you—means taking back from some set of men who too frequently are willing to exploit the public resources for the political or personal profit of a few, those things that belong to all the people. Perhaps such cases now are rare. Great progress in the right direction certainly has been made. But there is enough left of it to caution us in the use of our power in the future; and I say to you that there will be nothing left of it at all if the people who believe in these things—who, by the way, are always in the majority in any city—shall cast aside the policy of city divisions upon national political lines, put in office men who are honest and fair and who will really represent them, insist that those who aid these men, in turn, shall be of the expert and the skilled classes, insist that there shall be built up a permanent public service of those who have been trained for their duty, that waste and inefficiency of every degree shall be cast out and that attention shall be given to the greater problems of the city's life; then, as I have said, the task is accomplished.

You have done more to awaken the public mind to the necessity of a program of this sort than any body of men that I have ever known or with whom I have ever worked. You are the pioneers, to be sure, but you are planting seed that is going to come to fruition at a rate that will amaze even you. I find it so in the city of New York. I find that the people of the town are now actively backing us up in the great enterprises we have in view for the amelioration of the condition of our people and for the preparation of our city for its infinitely greater future. And I am very

serious when I say that we are in for an infinitely greater future. So it will be in varying degrees with every town and city.

Let us, while we congratulate our friends in Canada upon the splendid progress that they have made, prepare the way, across the border, for new fights and new advances. And let us resolve right here in the presence of our friends that we never have had a better time, that we never have had a more profitable series of discussions, that we never have made better friends—I don't care if they did, the other morning, at the opening exercises, give me a seat in a chair which I discovered afterward was made from the timbers of the schooner *Scorpion*, taken from the United States something like one hundred years ago.

I confess, though, that I was mean enough to suggest to the gentleman who pointed this out to me that we might have furnished a whole house and furniture of that description from timbers that happened to be detained on our shores at about the same time. The memories of that very long time ago are, let us all admit, only happily colored today. Just as our people differed at that time about certain political questions, that they seemed unable to determine except in a certain way, so the people of the States have differed since about political questions that had to be determined in a certain way. These were questions of destiny; questions of what had to be. We know, too, that while certain decisions were reached long ago, we now have upon this continent—let me say and say with great deliberation—north of the Rio Grande a common people, whose political separation is a matter more or less of accident, whose devotion to the ideals that keep them to their separate forms of government will, I trust, upon both sides continue to be as strong as it ever has been in their history; but a people who, when they are brought together in discussion upon those measures that affect them in common and belong to our common civilization, are one American people. On the acceptance of this truth the

City Planning Conference has carried us many degrees forward.

Again, on behalf of those who have come across the line—and, I think I may say, for those whom we have met on this side of the line who are also delegates in the Conference—let me thank our hosts of the Dominion, the Province and the city of Toronto. You, Mr. Chairman, I have learned in the few days of our residence here, are a splendid type of public servant. It is one of the things upon which we may facilitate ourselves that this Congress has been officially headed by you and called together by your Conservation Commission. We shall take back the pleasantest of memories of you all and we shall take back as well lessons and experiences that will do us a world of good. We do most earnestly hope that some of these days, as I said two days ago, you will let us come again.

BUSINESS SESSION

BUSINESS SESSION

THE Conference met in executive session at half-past four on May 27, Mr. Frederick Law Olmsted presiding.

REPORT OF THE PANAMA-PACIFIC EXHIBITION COMMITTEE

Your Panama-Pacific Exhibition Committee begs to report that conditions were found so unfavorable to the organization of a creditable and comprehensive municipal exhibit that further efforts have long since been abandoned.

We therefore recommend that the Committee be discontinued.

Voted: That the recommendation of the Committee be accepted and approved.

RESOLUTIONS ADOPTED BY THE CONFERENCE

RESOLUTIONS OF THANKS

Be it resolved by the International Conference on City Planning, in session at Toronto, Canada:

That we do hereby record our keen appreciation of the adequate forethought, the constant and universal courtesy, the abundant and gracious hospitality that have marked the preparations for and the reception of the Conference on City Planning at its session in Toronto.

And that we hereby voice our deep gratitude to the Local Committee and to all those who have in such wise so greatly contributed to the comfort and pleasure of the members of the Conference and to the notable success of the Conference itself.

And that particularly do we record our obligation and our gratitude to the Government of the Dominion of Canada, to the Commission of Conservation, to the Government of the Province of Ontario, to the City of Toronto, to the University of Toronto, to the Board of Trade of Toronto, to the Toronto Harbor Commissioners and to Mr. R. Home Smith and other citizens of Toronto whose thoughtfulness and consideration have rendered so delightful our sojourn in this beautiful city.

And be it further resolved that these resolutions be spread on the minutes of the Conference and that copies of them be transmitted to those to whom we are indebted and be sent to the daily press of Toronto.

Be it resolved by the International Conference on City Planning, in session at Toronto, Canada:

That we express our lively satisfaction in the fact that His Royal Highness, the Duke of Connaught, the Governor General, opened the Conference with an address fit in matter and in phrase and setting forth admirably the needs of our cities and the ends we seek to attain.

That we record our keen appreciation of the full significance of the fact that the Government of the Dominion of Canada and the Governments of the Provinces of Ontario, Quebec and Saskatchewan have, by officially acting as sponsors for this session of the Conference, set the seal of their approval on the ideals and purposes of the Town Planning Movement, have thereby given strong encouragement to those who have the cause at heart and have raised high hopes that the municipalities, following this auspicious lead, will, one after another, actively take up the task of planning wisely for the growth of their communities.

Be it resolved by the International Conference on City Planning, in session at Toronto, Canada:

That we express by unanimous vote our thanks to the newspaper press of Toronto for the space that they have given to reports of the proceedings of the Conference, realizing as we do the exceeding great service that the press

has it in its power to perform by spreading the gospel of Town Planning and thereby aiding in the creation of that sine qua non to success—an effective public opinion.

Resolutions Regarding the Town Planning Institute of Great Britain

Be it resolved by the National Conference on City Planning, in session at Toronto, Canada:

That we do publicly express our keen satisfaction at the recent founding in Great Britain of the Town Planning Institute.

That we confidently and justifiably believe that the Institute—happily started on its career at a time when the public mind is awakening to a lively sense of the need of town planning, and officered at its birth by men who so fortunately combine the qualities of enthusiasm, imagination, clear-headedness, experience and technical skill—will be of great and continuing service not only to its birthplace, Great Britain, but also to the world at large.

That we record our gratification at the action of the Institute in conferring honorary membership in the Institute upon the Chairman of the Executive Committee of the Conference.

And be it further resolved that the Conference tender to Thomas Adams, the first president of the Town Planning Institute, honorary membership in the National Conference on City Planning.

And be it further resolved that these resolutions be spread on the minutes of the Conference and that a copy of them be transmitted to Mr. Adams and to Mr. Patrick Geddes, the Librarian of the Town Planning Institute.

Resolution of Regret

Resolved, That this Conference note on its records its sense of profound regret at the death of Mr. Jacob A. Riis, of New York, a devoted friend of the Park and Play-

ground Movement, and of all forms of social service, and that a copy of this resolution be sent to the bereaved wife and children.

RESOLUTIONS ADOPTED AT A MEETING OF CANADIAN DELEGATES

1. Moved by Controller D. McDonald, Montreal, seconded by T. K. Nicol, Parks and Shades Commissioner, Guelph, Ontario, and

Resolved, That this representative gathering of Canadian delegates at the International City Planning Conference, held in Convocation Hall, Toronto University, on Wednesday, May 27, 1914, desires to record its grateful recognition and sincere appreciation of the efforts of the Commission of Conservation of the Dominion Government of Canada in the active promotion of the present Congress and in the very manifest interest it has shown in helping to the solution of present municipal problems, common to most cities and towns of the Dominion arising from the need of adequate town-planning and housing legislation.

2. Moved by Mayor J. Beaubien, Outremont, seconded by Mr. Gotch, Calgary, and

Resolved, That this representative gathering of Canadian delegates at the International City Planning Conference held in Convocation Hall, Toronto University, on Wednesday, May 27, 1914, desires strongly to pray the Commission of Conservation, in view of its very practical coöperation and interest in the aims and objects of the present International City Planning Conference happily promoted by it, to further continue its good work by the creation of a special Bureau of City Planning and Housing in connection with the activities of the Commission of Conservation to act as a central body to encourage and coöperate with Provincial or other housing and town-planning organizations and thus to pursue the good already attained and furthermore anticipated—a work which we

believe will be welcomed by all classes of people of the Dominion.

3. Moved by the Honorable P. G. Mackenzie, Provincial Secretary of the Province of Quebec, and seconded by Alderman W. Bissette, Outremont, and

Resolved, That this representative gathering of Canadian delegates at the International City Planning Conference, held in Convocation Hall, Toronto University, on Wednesday, May 27, 1914, respectfully offers its grateful appreciation of the action of the Commission of Conservation in inviting the most helpful presence here of Mr. Thomas Adams, of London, England, whose able manner in laying before the Convention the principles of town planning has been most inspiring and advantageous to our deliberations.

4. Moved by Mr. J. Leckie Wilson, Toronto, seconded by Mr. F. J. Todd, Montreal, and

Resolved, That the Chairman, Mr. J. P. Hynes, Toronto, and Secretary, Dr. W. H. Atherton, Montreal, of the Committee of Resolutions, be instructed to present the above resolutions in person to the Honorable Clifford Sifton, Chairman of the Commission of Conservation.

RESOLUTION OF HONORARY MEMBERSHIP

It was resolved and unanimously carried that honorary membership in the National Conference on City Planning be tendered to H. R. H. the Duke of Connaught, Governor General of Canada; the Honorable Clifford Sifton, Chairman of the Commission of Conservation, of Canada; and Mr. Thomas Adams, First President of the Town Planning Institute of Great Britain.

THE FOLLOWING RESOLUTIONS REFERRED TO THE EXECUTIVE COMMITTEE

Whereas, the great difficulty which stands in the way of satisfactory town planning with the necessary parks,

playgrounds and wide thoroughfares is the one of raising an adequate revenue without unduly burdening industry through excessive taxation, and

Whereas, the creation of these benefits adds to the land value of a municipality at least the amount of the sum expended in procuring these things,

Resolved, That the only feasible way of defraying the expenses of these public improvements is to assess the whole cost against the whole land value of the municipality which provides them, and

Be it further resolved, That this special tax upon land value be in addition to the ordinary tax, and shall be in addition to the maximum rate of taxation provided by statute.

Voted, That the resolutions be referred to the Executive Committee with power.

Invitations to the Conference for 1915

Invitations were received from Baltimore, Cincinnati, Detroit and Memphis, and were referred to the Executive Committee.

THE ORGANIZATION OF THE SEVENTH CONFERENCE

At the opening session of the Conference a nominating committee was appointed which submitted nominations for both the Executive and the General committees. Additions to the latter were made from the floor.

Voted: That the report of the Committee on Nominations, as amended, together with the nomination from the floor, be accepted.

Executive Committee

Frederick Law Olmsted, Brookline, Mass.
Nelson P. Lewis, 277 Broadway, New York City.
George E. Hooker, City Club, Chicago, Ill.
Lawrence Veiller, 105 East 22nd St., New York City.
Andrew Wright Crawford, Esq., Stephen Girard Bldg., Philadelphia.
Hon. Frederic C. Howe, People's Institute, New York City.
Hon. Lawson Purdy, Hall of Records, New York City.
Charles Moore, Security Trust Co., Detroit, Mich.
Richard B. Watrous, Union Trust Bldg., Washington, D. C.
Dr. Charles A. Hodgetts, Medical Adviser Commission of Conservation, Ottawa, Canada.
E. P. Goodrich, 35 Nassau St., New York City.
George S. Webster, City Hall, Philadelphia.
Edward H. Bennett, Railway Exchange, Chicago, Ill.
J. P. Hynes, 199 Yonge St., Toronto, Canada.
Henry C. Wright, Ass't Commissioner of Charities, New York City.

JOHN NOLEN, Harvard Sq., Cambridge, Mass.
GEORGE B. FORD, 101 Park Ave., New York City.

GENERAL COMMITTEE

HON. GEORGE MCANENY ..... New York City
EDWARD M. BASSETT, ESQ. ..... New York City
J. H. MACCRACKEN ..... New York City
ARNOLD W. BRUNNER ..... New York City
MILO R. MALTBIE ..... New York City
FRANK B. WILLIAMS, ESQ. ..... New York City
RICHARD M. HURD ..... New York City
JOHN IHLDER ..... New York City
B. A. HALDEMAN ..... Philadelphia
J. RANDOLPH COOLIDGE, JR. ..... Boston
ALLEN B. POND ..... Chicago
WALTER D. MOODY ..... Chicago
W. F. DUMMER ..... Chicago
T. GLENN PHILLIPS ..... Detroit
HOWARD STRONG ..... Minneapolis
FREDERIC W. CLIFFORD ..... Minneapolis
GEORGE E. KESSLER ..... St. Louis
MAJ. JOSEPH W. SHIRLEY ..... Baltimore
COL. A. J. LOGAN ..... Pittsburgh
HON. WILLIAM A. MAGEE ..... Pittsburgh
E. DRUMMOND LIBBY ..... Toledo
S. MORLEY WICKETT ..... Toronto
A. J. ANDERSON, ESQ. ..... Toronto
A. A. STOUGHTON ..... Winnipeg, Man.
JAMES W. DAVIDSON ..... Calgary, Alta.
R. M. HATTIE ..... Halifax, N. S.
JULES DUCHASTEL ..... Outremont, P. Q.
MEYER LISSNER ..... Los Angeles
DANA W. BARTLETT ..... Los Angeles
JAMES D. PHELAN ..... San Francisco
ALFRED BETTMAN, ESQ. ..... Cincinnati
ELI D. HOFELLER ..... Buffalo

CITY PLANNING CONFERENCE

Paul L. Feiss ..... Cleveland
Munson Havens ..... Cleveland
W. Templeton Johnson ..... San Diego, Cal.
A. C. Comey ..... Cambridge, Mass.
Robert Galloway ..... Memphis, Tenn.
Charles Mulford Robinson .. Rochester, N. Y.
A. L. Brockway ..... Syracuse, N. Y.
Vincent S. Stevens ..... Akron, O.
Col. D. N. Foster ..... Ft. Wayne, Ind.
Prof. Aubrey Tealdi ..... Ann Arbor, Mich.
John C. Dana ..... Newark
J. C. Murphy ..... Louisville
J. C. Nicols ..... Kansas City, Mo.
Frederic G. Todd ..... Montreal

APPENDIX

APPENDIX

EXTRACTS FROM CITY CHARTER OF HALIFAX, NOVA SCOTIA

Sections Relating to Official City Plans

591. (1) The Council shall cause to be prepared, under the supervision of the engineer, an official plan of the city, upon which shall be shewn —

(*a*) The lines of every existing street which has at any time heretofore been dedicated or conveyed to the city and accepted by resolution of the Council, or laid out under the authority of any enactment;

(*b*) The lines of every other street which has been opened and used by the public but has not been accepted by the city; and

(*c*) The lines of any projected extension or alteration of any such street, or of any projected new street, approved by the engineer.

(2) For the purpose of making such plan, the engineer or any assistant or employee may enter upon any private property in the day time. C. C., s. 549.

592. Every such new street, and every such alteration or extension of any existing street, shall be laid out on such plan of such extent and dimensions as the engineer determines; but no new street shall be laid out

(*a*) The width of which is less than sixty feet, or

(*b*) Which does not terminate at both extremities either on another street or at tidal water. C. C., s. 550.

593. On any such plan any property of the city shall be shewn. C. C., s. 551.

594. (1) When the plan or any portion thereof has been completed, the same shall be submitted to the Council for confirmation.

(2) Public notice of the completion of such plan or portion thereof (and in case of a portion, specifying what portion), and of the date of the meeting of the Council at which it is

proposed to confirm the same, shall be given by publication in at least two newspapers, published in the city, for not less than four weeks previous to the date appointed for the meeting. The notice shall also state that the plan may be inspected by any citizen at the office of the engineer at any time during office hours up to the date so fixed, and that any citizen may attend at the meeting and be heard.

(3) At such meeting, or if no quorum attends, at the next meeting, or at any other meeting to which the hearing of the matter is adjourned, the Council shall hear any objection to the plan, and may either confirm the same or alter or amend it in any particular.

(4) In any provision of this Act relating to such official plan, the expression "plan" shall include any such portion thereof, and the expressions "confirmation" and "confirmed" shall respectively include "alteration or amendment" and "altered or amended." C. C., s. 552.

595. (1) Upon the completion and confirmation of such plan, the same, certified by the engineer, shall be deposited in his own office, and a copy, so certified, in the registry of deeds for the County of Halifax.

(2) The copy so filed in the registry of deeds may, for convenience, be divided into sheets. C. C., s. 553.

596. Upon such confirmation, the engineer shall set up such bounds or monuments as he deems proper to mark the lines of every existing street shewn on such plan, and a record of the date of setting up every such bound or monument, and the location and nature thereof shall be kept by the engineer. C. C., s. 554.

597. After any such confirmation, when any new street is opened, or any alteration or extension made to any existing street, the engineer shall mark such street, alteration or extension on the plans filed in his office and in the registry of deeds, and shall set up such bounds or monuments as he deems necessary to mark the lines thereof. C. C., s. 555.

598. (1) When the plan has been so confirmed by the Council, the same shall be binding and conclusive upon the city and the owner of any property affected, and upon every other person whomsoever, as to the location, dimensions and lines of any existing street shewn thereon, and also that such street at the time of confirming the plan belonged to the city.

(2) Nothing in this section shall be construed to prevent the city at any future time from extending, widening or otherwise altering any street shewn on such plan. C. C., s. 556.

599. (1) After the confirmation of such plan, no person shall open or lay out any street or make any extension of an existing street, not shewn thereon, without the consent of the Council. Before such consent is given, the person applying for permission to open the street shall furnish to the engineer a correct plan of the proposed street on a scale of thirty feet to the inch, and the engineer shall certify that the proposed street conforms to the requirements of law and is in other respects satisfactory.

(2) Every person who contravenes this section shall be liable to a penalty not exceeding four hundred dollars, and in default of payment, to imprisonment for a period not exceeding three months.

(3) In any prosecution or other proceeding for a contravention of this section, the sale, or agreement for a sale, by any person of a lot of land purporting to be located or bounded upon a street not existing, or not shewn upon such plan, shall be evidence of opening or laying out a street in contravention of this section by such person. C. C., s. 557.

600. (1) After the confirmation of any such plan, no person shall place upon any land shewn by such plan to be required for any new street, or any alteration or extension of an existing street, any building, or any addition or improvement to any building other than necessary repairs.

(2) If any such building, addition or improvement is so placed, the same shall be deemed a nuisance, and the solicitor shall forthwith take proceedings by action in the name of the city to compel the removal of the same.

(3) In the event of such new street being opened, or alteration or extension made, no damage or compensation shall be allowed in respect to any building, addition or improvement so placed. C. C., s. 558.

836. No person shall erect any building on Young Avenue, or within one hundred and eighty feet thereof, without first submitting to the inspector of buildings the plans and specifications thereof in duplicate, including a statement of the materials of which it is proposed to construct such building, together with an estimate of the cost of the building and a declaration of the purpose for which the building is intended to be used, and the inspector shall refuse to approve of such building if the same does not conform to the requirements of a building on Young Avenue as hereinafter specified.

837. No such building shall be approved of which —

(*a*) The estimated cost, if a wooden building, is less than $5,000; or

(*b*) The estimated cost, if a single brick or stone building, is less than $6,000; or

(*c*) The design and appearance is not in the opinion of the inspector suitable to a building to be erected on the said avenue.

838. If the inspector refuses to approve of any building which otherwise conforms to the requirements of this Act in respect to a building on Young Avenue solely on the ground that it is not suitable in design and appearance, an appeal shall lie from his refusal to the Council, who may approve of the building.

839. (1) The approval of the inspector shall be endorsed upon the plans and specifications, and a copy of the same shall be retained by him.

(2) If a proposed building is approved by the Council on appeal from the refusal of the inspector to approve of the same, a memorandum of such approval shall be endorsed on the plans and specifications, and a copy of the plans and specifications retained by the inspector.

840. In that part of the city now known as the Miller property lying in the southern part of the city and bounded as follows, viz.: on the west by Tower Road, on the south by Miller Street, on the east by View Street and Pleasant Street and on the north by a line running parallel to Owen Street, and 189 feet northwardly therefrom, other than so much thereof as is situated on Young Avenue, no building shall be erected which —

(*a*) If of wood shall be of less cost than $2,000, if a single dwelling house or if containing more than one dwelling, at a less cost than $1,500 for each dwelling so contained or,

(*b*) If of brick or stone, of a less cost than $3,000 for a single dwelling or if containing more than one dwelling, at the rate of $2,000 for each dwelling so contained.

841. No building at any time erected on Young Avenue, or within 180 feet thereof, shall be used as a shop, hotel, house of entertainment, boarding house, livery stable, or for any purpose other than a private dwelling house, or private stable in connection therewith. No such private stable or any part thereof, shall be erected within one hundred feet of Young Avenue.

842. (1) On the part of Young Avenue lying to the south of a point on the east side of said avenue 169 feet south of Inglis Street, and of a point on the west side of said avenue

403 feet 6 inches south of Inglis Street aforesaid, no building shall be erected the main portion of which is nearer to the side line of the avenue than 40 feet, and no verandah, portico, porch, stoop, steps or other appurtenances to any such building, shall be at a less distance from such side line than 25 feet.

(2) On the remaining portion of the said avenue, no building shall be erected any part of which is at a less distance than 12 feet from the side line of such avenue.

843. No building shall at any time be erected on any lot having a frontage on any street, other than Young Avenue, extending through the said Miller property at a less distance than ten feet from the street.

No close fence shall be erected nearer to Young Avenue than 40 feet and the grading of any land within 40 feet of Young Avenue shall be subject to the approval of the City Engineer.



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